

**FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.**

[PRICE 6D.]

with, and which may be at all times obtained on application at their office.



## Transactions of Scientific Bodies.

## MEETINGS DURING THE ENSUING WEEK.

THIS DAY	Medical—33, George-street, Hanover-square	8 P.M.
MONDAY	Geographical—2, Waterloo-place	8 P.M.
	British Architects—16, Grosvenor-street	8 P.M.
TUESDAY	Horticultural—21, Regent-street	2 P.M.
	Medical and Chirurgical—53, Berners-street	8 P.M.
	Civil Engineers—25, Great George-street	8 P.M.
	Synagogue—71, Mortimer-street, Cavendish-square	7 P.M.
WEDNESDAY	Microscopical—21, Regent-street	8 P.M.
	Entomological—17, Saville-row	8 P.M.
THURSDAY	Royal—Somerset-house	8 P.M.
	Antiquaries—Somerset-house	8 P.M.
SATURDAY	Asiatic—5, New Burlington-street	2 P.M.
	Royal Botanic—Inner Circle, Regent's-park	3 P.M.

## Proceedings of Public Companies.

## WATERFORD, WEXFORD, WICKLOW, AND DUBLIN RAILWAY.

A meeting of dissentient shareholders in the above company took place at the King's Head Tavern, Poultry, on Wednesday, the 5th inst.

C. D. NASH, Esq., in the chair.

The following report was laid on the table:—

The "associated shareholders" of the "3 W's Co." especially invite the attention of the independent shareholders of the "South Wales Co." holders of the principal part of their stock, to this report on the present position of affairs, and as showing the necessity for their intervention, and an independent management.

1. In our reports of 1848 and 1849, we endeavoured to rouse the "South Wales" shareholders to their true position and policy, and foretold the fate of their boasted "guarantee" of 5 per cent.,—as they thrust off the withering influence of the "Great Western," and gave their shareholders independent officials. Recent events show that the prophecy was true, and it is now an avowed fact that the "Great Western" desire to escape from that off-pledged guarantee.

2. The delusion of broad gauge competition with the "Chester and Holyhead," for the Dublin traffic (by means of that mendacious speculation, the "3 W's Co.," and by the South Wales line to Fishguard) is now at an end—the "broad gauge" was sanctioned by the Railway Commissioners for the "South Wales" line on the faith of that delusion—the "3 W's" is at length strangled—and the "South Wales" line will be cut off of Fishguard—the reasons, therefore, for the "broad gauge" are gone, but the real markets for the South Wales traffic (the Midland and Northern Counties) are still off by the "exceptional gauge," and the "South Wales" shareholders are at the tender mercies of Great Western "working expenses," if the shareholders continue their present trammels.

3. We also find that, notwithstanding the decision of the late "South Wales" meeting on 28th Nov., 1850, the officials of that company (being also officials of the Great Western and 3 W's Co.) continue their advertisements for an application to Parliament "to cancel, alter, &c., the agreements with the Great Western" and also to "legalise their subscriptions to the Irish and Welsh" lines, with which the directors were personally connected! Such a step demands a strict scrutiny at the hands of the shareholders; and we trust to their co-operation in petitions to Parliament against it, and to investigate the proceedings.

4. The cancelling of the existing agreements between the Great Western and the South Wales Co.'s (ably discussed in the *Railway Times*, of Nov. 23), will deprive the "South Wales" shareholders (1) of the 5 per cent. interest on calls paid up from last January, 1847—(2) of the second guarantee of the capital and interest thereon contributed to "Irish and Welsh" lines; and future liabilities thereto. Those "contributions" were admitted to have been illegally taken out of "South Wales" capital by gentlemen who were directors of those other companies, as well as of the 3 W's, South Wales, and Great Western Co.'s—(3) It will also cast on the South Wales Company the liability to contribute in future to the capital of those companies, two of which (besides some of the Welsh Companies) never carried their intention to go on! The "South Wales" shareholders will, therefore, have to contribute further sums, besides the 110,840,92, 671, &c., already paid upon an original liability of about 1,000,000, to the capital of Irish and Welsh lines! There is no escape unless those lines be stopped and wound up.

5. Directors of the 3 W's and South Wales Companies intend to apply to Parliament to legalise their share speculations or "subscriptions" in name of the South Wales Co. to the 3 W's Co., Cork and Waterford Co., Tenby and Saundersfoot Co., Vale of Neath Co., Llynvi Valley Co. On these shares there have been paid 33,600, 6,000, 15,000, 60,000, 10,000, &c., and there are further liabilities amounting to about 179,800, 80,000, 10,000, 100,000, and 60,000, independent of the Swansea Valley, Llanelly, &c., mentioned in our report of 1847. Some of the same directors, as directors of the Cork and Waterford, and the 3 W's Companies, also intend to apply to Parliament to enable those companies to go on and make parts of their line, and call up further capital!

6. As to the *Waterford, Wexford, Wicklow, and Dublin Co.*—The same persons (directors of the South Wales, 3 W's, and G. W. R. Companies), in 1846-7 admitted that they "had used the 'South Wales Company's' capital illegally," for 11,200 shares, *ad par*, and thus defeated the shareholders seeking a dissolution of that company in 1846-7. They next got from Parliament powers for a future subscription by the South Wales Co.—the "South Wales" shareholders tolerated further payments up to 34 per share, on the repeated public assurance of Mr. Russell, that "no more calls would be made or paid on these shares," and that there were agreements that unless the 3 W's Co. could show the means of going to Wexford, no more calls were to be paid.—The same was stated in the "returns" to Parliament in 1849, in the "resolutions" of the two boards, and their correspondence in 1849-50. Those statements "answered their purpose." The facts as now revealed, present different conclusions. In season 1850 those directors applied for powers to make the 3 W's line to Wicklow, which would have required all the South Wales Company's contribution—but that was opposed and defeated. They seek, in 1851, the same continuance of the line and liabilities, yet propose to forego the "guarantee" which the South Wales Company, have, or ought to have, from the Great Western Company.

7. The existence of the "3 W's Company" is in the "South Wales Co.'s" hands—they hold half of its paid up capital, but unfortunately the board of each contains the same ruling powers, and it is material to see how that has operated, and will operate.

8. Passing over what has been called the "fast and loose" play up to 1849, we confine ourselves to recent events. The "South Wales" board has passed resolutions that the "3 W's" should be wound up—the "3 W's" board now resolve to go on!—The shareholders desire to wind up and close their liabilities; their directors find it more convenient to themselves to say no. Their directors have given *written pledges* to the associated shareholders to wind up; they called for "securities" to dissolve, and promised to do so—by their undertakings of 3d June, and letters of June and July; yet the "South Wales" board would not sign the "requisition" to wind up, and the officials have influenced other shareholders not to do so, and thus defeated the general object of the shareholders. In their report of 31st August, 1850, the "3 W's" directors declared their intention to yield to the general wish, and to "dissolve the Co., and to ask Parliament for powers"—yet in November and December the officials (connected with the South Wales, and Great Western Railway directors) advertise an application to Parliament to continue the line and liabilities, and refuse to call a meeting to dissolve the 3 W's Co., under the recent Act. The "South Wales" board can, at least, make the effort to wind up under the *Railway Abandonment Act*—why will it not try? Why resist the dissolution, which should be considered only in reference to the interests of the shareholders, and not of individual members of any board?

In an affidavit (May 1850) by Mr. Brunel and the solicitors of these companies, it is stated as to the 3 W's, "I believe the directors do not intend to abandon any portion of their said line unless they shall be authorised so to do by Parliament—that if the Act (to shorten the line) shall be defeated, the directors intend at present to make the line as now authorised by Parliament" and in their recent "answers" in Chancery (Oct. 1850) it is stated "that there does yet remain a further liability upon such 11,200 shares, amounting to 179,800, but these directors deny that the payment of such sum cannot be enforced from the South Wales Co.—on the contrary, defendants are advised and insist that if the shares in the said 3 W's Co. shall be required to be paid up in full, the payment of the said amount can be enforced against the South Wales Co."—and accordingly they are taking steps to confirm such a result, and the officials are retreating from the concern by assigning to paupers!

In the argument (Nov. 1850) in *Logan v. Courtown*, before the Master of the Rolls, the "South Wales Co." actually contended and insisted that they were legally the holders of 11,200 shares in the 3 W's Co., and liable to contribute upon them to the construction or expenses. Under such circumstances the associated shareholders applied to the independent portion of the South Wales Co.'s to interpose—to investigate these matters—to stop the yearly waste of capital in expenses, and applications to Parliament—to insist on a wind up of the Irish companies, or at least on the effort to wind them up, and on that honest performance of their duty which is characteristic of Englishmen: as also to insist on the powers of the "South Wales Co." not being used for any other than the legitimate purposes and benefit of that company. Failing which, shareholders must be prepared to bring the subject before Parliament, and show the influences which have operated on members of each board, and made victims of the helpless constituents of both companies.—CHARLES D. NASH, Hon. Sec.

The CHAIRMAN said, as they only met for the purpose of adjournment, he would not trouble them with any observations. Since they last met he had obtained copies of the bills which were intended to be carried into Parliament next session, in reference to the company. By the bill introduced by the directors of the Great Western, the South Wales, and the Waterford Companies, they proposed to continue the Waterford line to Wicklow, and to reduce the capital to 500,000. The directors intended to expend 300,000, in making this, and 25,000, for a deviation, which made 325,000. Already they had spent 100,000, which brought them nearly to that amount, being altogether 475,000. The estimated capital required for this new piece of line was 500,000, which was made out in spite of the various engagements to wind up the Waterford Company. In order to effect this, it was proposed to make a call of 10s. per share on all the shareholders. (Hear, hear.) The Dundrum Company had brought in a bill to make a line from Dundrum to Bray, which would give them a second line into Dublin; but it was in his opinion, a matter of great doubt if they would go on with that undertaking. Now, the shareholders of this company, as well as himself, wanted to engage the directors to wind up the Waterford, &c., Company, and for that purpose he had endeavoured to give effect to the written engagements of the directors. (Hear, hear.) This attempt he would oppose in Parliament, and he had no doubt he should succeed in the objections he would raise on the part of the shareholders. In the report he had circulated, it was stated that the South Wales Company had engaged to take 11,200 of the shares of this company off the hands of the directors, at the moment when they (the shareholders of the 3 W's Company) were preparing to dissolve that scheme. By getting hold of the majority of the shares, they had enabled the directors to continue the Waterford, &c., Company, instead of dissolving it, according to the wish of the shareholders. The South Wales Company were protected in this by the Great Western Company, which guaranteed them in respect to their advances to the Irish railway companies, so that, in point of fact, it was the Great Western Company that wished to continue the 3 W's Company, in spite of the shareholders. Now, it happened unfortunately for them that the same men were directors of all these three railways; still he hoped their opposition would induce Parliament to do that which justice which they could not obtain from their own directors.

A SHAREHOLDER asked, how the proceedings in the Rolls' Court were going on?—The CHAIRMAN said, in reference to that, they had not yet got a decision, and he thought they could not look for it till April; but there was no need to press his lordship for a decision.—Some observations having been made by other shareholders, Mr. WADSWORTH said he had been to Dublin, and had seen many of the shareholders there, who stood in the same position as those in England. They considered they had got an excellent agent in Mr. Nash; for by him they stood in their present favourable position. He could not say that they were safe yet in their legal position; but he would say that their parliamentary position was still strong. (Hear, hear.) They must take care that this committee of these directors, by which they pass bills, which would prevent their acts from being legalised. Should they be defeated, they would be under the necessity of winding-up the 3 W's Company, when he hoped a great portion of the funds which had been so illegally distributed would come back to the shareholders. It was his opinion that justice, though very tardy, would be done to them in the end.

## THE MINING JOURNAL.

The CHAIRMAN then submitted the following resolution, which was passed:—That the further report regarding this company and the South Wales Company, and the applications to Parliament be received and circulated; and that the insolvent state of this company requires that the directors' pledges to dissolve it be carried into effect. That further steps be taken (by petitions and requisitions and other means) for obtaining dissolution of the scheme and opposing the bills of the directors of the Great Western, South Wales, and Waterford, Wexford, and Wicklow Companies, seeking to continue this scheme, and the liability of the remnant of shareholders for 300,000, and upwards, and the liability of the South Wales and Great Western Companies thereto. That the acting associated shareholders take such steps for the purpose of benefiting the shareholders as they think fit.

The meeting then separated.

## COMPANIES PROCEEDING UNDER THE WINDING-UP ACT.

**WINDING-UP JOINT-STOCK COMPANIES.**—Out of the 120 railway and joint-stock companies now being wound up by order of the Court of Chancery, upwards of 40 are almost entirely in a state of suspension, either from the parties petitioning neglecting to proceed, the solicitors having liens upon them declining to give up papers to the official managers without being paid their costs, or from the parties conducting the proceedings being bought off from prosecuting the enquiry. To meet this state of things, the 41st section of the Joint-Stock Companies' Winding-up Act declares that, in default of due diligence in the prosecution of proceedings under the order, it shall be lawful upon application to the Master to commit the matter to any other contributory in the company, in the event of the original party not proceeding. Considerable delay in these proceedings generally is also occasioned by the present unsettled state of the law of liability in connection with joint-stock companies. Master Brougham has issued an order to the effect that all official managers of the companies he is winding up shall leave their accounts in his office to be passed and examined three times a year—viz., in January, June, and November.

**THE IMPERIAL BANK OF ENGLAND.**—Master Farrer has decided that the executors of a transferee of shares in this company under somewhat peculiar circumstances should not be placed upon the list as liable to pay off the outstanding liabilities. It appeared that Richard Shepherd, of Warrington, saddler, who died in 1847, transferred some 30 shares in the bank to one Joseph Lawless, and for which the former signed the Deed of Settlement. Shepherd, however, was never virtually treated by the bank as a shareholder, having about two months after he held the shares transferred them to Lawless, who was a shareholder previously. No account was opened with Shepherd, and the calls were made upon, and the dividends paid to, the new proprietor, Lawless. There was no entry of Shepherd's name in the register, and the deed of the company by its 64th clause contained a provision that a party taking shares by transfer assumed all the liabilities attaching to them. This decision is, of course, amenable to that of the court above, yet to be made known upon appeal on the general question of the liability of executors.

**ROYAL BANK OF AUSTRALIA.**—The first meetings to be held in the winding up of this company in the ensuing term will be with reference to the liability of the shareholders in respect to the large amount of debentures of the bank, which will be contested on the ground that the directors had no legal right to borrow under the Deed.

**ST. GEORGE'S STEAM-PACKET COMPANY.**—Messrs. Blood and Souby, the official managers, have resigned their appointments, but Master Farrer has intimated his intention, should there be no opposition, of re-appointing Mr. Souby to be official manager.

**TONTINE LIFE ASSURANCE COMPANY.**—Sir W. Horne has declared a call of 20s. per share, on those shareholders in the company who have not paid up the sum of 20s. per share on their respective shares, originally issued in connection with the company.

**BRIGHTON, LEWES, AND TUNBRIDGE WELLS RAILWAY.**—Reports having been circulated that the liabilities of this company are extremely heavy, Mr. H. J. Norris, the official manager, has by circular informed the contributories that the accounts of persons claiming to be creditors amount to about 4500*l.*, subject to taxation, and that a call of from 5s. to 6s. per share will be ample to cover the same, and also the expenses of winding up.

**LONDON AND SOUTHERN.**—The list of contributories will be revised by Sir G. Rose, on the opening of the term, in conformity with the existing law of liability as laid down by the courts above.

**IMPROVEMENTS IN WATER FILTERERS.**—Among the numerous mechanical appliances for preserving in a pure and wholesome state, and thus rendering essentially conducive to health the various aliments of our daily consumption, there is probably none of greater importance than those which purify the water which we are from circumstances compelled to drink, and generally understood under the name of filterers. The water at present supplied, not only in London, but in most of our large towns, is drawn from impure and corrupt sources, and which often presents to our senses a filthy compound, mechanically charged with decomposed animal and vegetable matter, and which, when taken into the system, induces diseases often the precursors of dangerous and fatal results. Although we cannot by filtration alter the chemical character of the water after adulteration, or restore its pristine purity, a perfect filterer, which intercepts every insoluble body mechanically held in the water, goes far to render such water perfectly wholesome, and prevent those serious evils which experience has proved do occur from the use of an impure water. Many descriptions have, at various times, been before the public, more or less applicable to the uses intended for, and the name applied to them; but certainly the most compact, portable, and effective water filterer we have yet seen is one just patented under the above title by Mr. James Forster, of Liverpool, and one which we should think must come into extensive, if not general, public use. It consists of two hemispheres of iron, united at the flanges by screw bolts, and forming a perfect sphere. Within this globe is placed a second hollow sphere of Derbyshire silicious firestone, of exceedingly fine grain, and extremely porous. This sandstone hollow ball is turned in two hemispheres,  $\frac{3}{4}$  inch in substance, afterwards cemented together, and by a hollow porcelain screw pipe connected through the bottom of the metal cylinder with the supply tap. The water from the main, or pump, whichever may be preferred, is admitted through the top of the outer case, filling the outer space between the two spheres, and by the hydrostatic pressure it is forced through the pores of the stone globe, and is drawn out beautifully pure from the tap beneath. There is also another tap for drawing the water in its unfiltered state for washing, cleaning, &c., by which act the deposit of matter on the stone is effectually washed away. On getting clogged, after some months use, a few minutes immersion in dilute sulphuric acid effectually cleanses them from all calcareous and aluminous matter, and restores the original porosity. It is suggested that the present water companies should take licenses, and supply a pressure filterer to every house, charging a trifle (say from 6d. to 2s. a year) to the consumer, in the same manner as gas consumers are charged for the use of the meter. This plan would be highly satisfactory, and more effectually put a stop to the outcry about the present dirty supply than volumes written on the subject. One fact will sufficiently show the efficacy of these filterers in intercepting the most minute substances in mechanical union with the water. Pure water, it is known, produces an action on lead by which an oxide is formed, which, by exposure to the atmosphere, is transformed into a carbonate. Both these are insoluble substances, but, when mechanically diffused in water, can rarely be separated by filtration; but Mr. Spencer, in his report to the General Board of Health, states that in his experiments the best means he found for obtaining the water free from these salts of lead was Forster's patent pressure filterer.

Commander Heaslop and Mr. Horton's newly-invented night signal lights were tried on Tuesday evening at Portsmouth, from Seaview to the dockyard semaphore, the distance between the points being about five miles. They appeared to answer remarkably well, as the lights and their different colours could be clearly seen without a telescope. The number of lights in use at one time could not be distinctly made out without a telescope at so great a distance. They appeared to spectators from the platform in Portsmouth to be one body of fire. These lights, we are informed, are not intended for the use of ships, being too cumbersome, owing to their weight and size, but are intended for use along the coast, in case of necessity.

## LITERARY NOTICE.

*A Treatise on Bracing, with its Application to Bridges, and other Structures of Wood and Iron.* By HENRY BOW, C.E. Edinburgh: A. and C. Black. London: J. Weale.

With the introduction of the railway system many structures had to be erected, to which old forms and practices were inapplicable, and for which new appliances had to be introduced, more especially to works in iron, as applied to bridges, girders, &c., and the peculiar methods by which they had to be strengthened, or trussed, braced, and tied together. The failure of many of these iron structures, the experiments which ensued on the strength of materials, particularly iron, and the construction of those gigantic novelties—the Britannia and Conway Bridges—opened a wide field for speculation, and the development of practical experience; and the little work before us is one of this character. In his preface, the author informs us that, many years since, the simple description of bracing referred to suggested itself to his mind, and having investigated its qualifications, he expected to have had opportunities in the exercise of his profession of practically using it. Such, however, not being the case, he has followed up the less congenial course of placing his investigations before the public, in hopes that they may be found useful. The propositions on which the author bases his deductions are—first, that in a triangle an angle cannot increase, or diminish, without the opposite also increasing or diminishing;—second, that when the angles of a figure are unchanged the shape is the same, and, therefore, the figure is completely braced. The converse of each of these is also true. The work then proceeds to describe the double-acting or triangular method of bracing; the application to various structures; pressures of four classes of structures; inclination of braces, and various considerations under the head "Construction;" the whole illustrated by diagrams. The volume will be found useful for reference, both for wood and iron structures, particularly to the young engineer.

**THE NEW STORM INDICATOR.**—Dr. G. Merryweather, of Whitby, whose "Tempest Prognosticator" has been recently noticed in our columns, has applied to the Royal Commissioners of the Great Exhibition for standing room for a circular, pyramidal apparatus of 3 ft. in diameter, and 3 ft. 6 in. in height, composed of polished mahogany, glass, silver, brass, &c., to illustrate his discovery of the means of anticipating storms, which he intends to promulgate for the benefit of all nations on that great occasion. The ingenious Doctor, who has devoted years of study and observation to perfecting this important discovery, states his intention to simplify the apparatus as much as possible, to render its operations comprehensible to every one, and manageable by all who take pleasure in meteorological pursuits. The accuracy of the "prognosticator" has been tested in so many instances, that the inventor expresses his confident belief that it will be the perpetual means of saving thousands of lives, as well as protecting an immense amount of property. He also promises a pamphlet on the opening of the Exhibition, descriptive of the discovery, and containing proofs of its efficacy and instructions for its management.

**MOTIVE-POWER.**—Mr. J. Hartas, of Wreton Hall, Yorkshire, has patented some improvements in machinery for obtaining motive-power, which have reference to that class of machines for obtaining power, in which the muscular exertion of a horse or other animal is applied, through the intervention of an endless travelling floor, to give rotation to a shaft, from which the power is taken off and transferred to any purpose for which it may be required. The stoppage of machines of this description is attended with these inconveniences—that either the mechanism itself is liable to be deranged, from the sudden application of a check sufficient to overcome the resistance of the fly-wheel when in rapid motion, or that the horse is in danger of being thrown down and injured, if the stoppage be not instantaneous. As a remedy for these contingencies, it is proposed to hang the fly-wheel on a hollow shaft, free to revolve on the driving-shaft, and provided with a ratchet-wheel, which is to be set in motion by means of a click or pawl in the interior of a cylindrical case keyed on the main shaft, and within which the hollow shaft and its appendages will thus revolve. The result of this arrangement will be, that when the horse stops and motion is no longer communicated to the driving-shaft, the click will continue to revolve with a gradually decreasing velocity, until its momentum is exhausted. As soon as the horse again begins to move, the pawl will take into the teeth of the ratchet-wheel, and restore to the fly-wheel its original speed.—*Claim:* Making the fly-wheel of such machinery, with its appendages, independent of that part of the mechanism which is acted on by the animal, so that when the horse or other animal and the travelling endless floor are stopped, the fly-wheel and its appendages may continue to rotate, without inconvenience, or risk of deranging the machinery.

**MICE POWER.**—A gentleman in Kirkcaldy, Scotland, has trained a couple of mice, and invented machinery, enabling them to spin cotton yarn. The work is so constructed, that the common house mouse is enabled to make atonement to society for past offences, by twisting twine, and reeling from 100 to 126 threads per day. To complete this, the little pedestrian has to run 104 miles. A halfpenny worth of oatmeal, at 1s. 3d. per peck, serves one of these tread-wheel culprits for the long period of five weeks. In that time it makes 110 threads per day. At this rate a mouse earns 7s. 6d. per annum. Take off 3d. for board, and 1s. for machinery, there will arise 6s. clear for every mouse annually. The mouse employer was going to make an application for the lease of an old empty house, which will hold 10,000 mouse mills, sufficient room being left for keepers, and some hundreds of spectators.

**HIGH-PRESSURE STEAM REGULATOR.**—High-pressure engines are now frequently employed in operations where extreme regularity or uniformity of speed is essentially necessary. A great step towards securing this uniformity would be obtained by adopting a separate regulating-valve, placed before the usual governor throttle-valve. This valve I would make like the common throttle-valve, and connect it with the piston-rod of a small steam-cylinder, to which a helical spring must be attached to balance the steam-pressure. Steam, direct from the boiler, is conducted into the bottom of the cylinder, and as the pressure increases, the corresponding rise of the piston closes the valve in the main steam-pipe, more or less, adjusting it so that the requisite quantity of steam shall pass through, and no more. Then, just as the steam-pressure varies (and it must vary occasionally) the piston will rise or fall, and constantly adjust the flow, so as to keep up the pressure to the point necessary to work the engine. A graduated scale on the top of the cylinder serves to show the steam-pressure at any time, an index being carried by the piston-rod.—JOHN BRAIDWOOD: *Johnstone—Glasgow Mechanics' Journal.*

A new method of stopping railroad trains has recently been discovered in the United States—electricity is the means used. The plan contemplates the arrangement of a galvanic battery on the locomotive, under the eye and hand of the engineer, with a rod running thence to each wheel in the train, connected with the different clogs or brakes, and to be connected with the battery by a touch, so as to apply simultaneously and instantly any desirable amount of pressure to every clog.

**KETLEY IRON WORKS, KINGSWINFORD.**—There is now a probability of these extensive iron works, which comprise three blast furnaces, &c., and which were formerly carried on by Messrs. Oakes and Jones, but for some months have been standing idle, being put again into active operation, they having been lately taken on lease by B. Gibbons, Esq. We trust, for the sake of the neighbourhood generally, but more particularly for the working men in the locality, that it will not be long before they are in full work.

**STATISTICS OF CORNWALL.**—From some investigations made by Mr. Richard Thomas, of Falmouth, we find that the direct distance from the Land's End to the north-eastern corner of the county, near the source of the Tamar, is 71,670 fathoms, or nearly 81½ miles. The longest meridional line that crosses the county, appears to be from the extremity of the northern coast at Marsland Mouth in the north, to the cliff a little west of the spot where the Nailand signal flag staff stood near Polperro in the south—this distance is 36,700 fms., or nearly 41½ miles. The longest line direct east and west is 38,590 fathoms, or about 43½ miles from Carn Gwila headland to Penlee Point, near Plymouth Sound.

**CHARGE OF UTTERING FORGED MINING SHARES.**—A person named Wm. Daniels, who has at various times gone under the name of Thomas Kittow and W. D. Boase, highly respectable parties, living in Cornwall, was brought up to Guildhall on Wednesday on the above charge. Mr. Thomas Fuller, mining sharebroker, of 48, Threadneedle-street, said that he received a letter from the prisoner, purporting to come from a Mr. W. D. Boase, the purser of the *Wheal Mary Ann*, near Liskeard, in Cornwall, stating that he (the prisoner) had some shares in that mine to sell, and desiring him (witness) to dispose of them for him. The price required by the prisoner, who gave a reference as to his respectability, was 50*l.* per share. The shares were subsequently sold by witness on behalf of the prisoner, who forwarded a transfer of the shares, purporting to be signed by Mr. Boase. Witness paid the money to the landlord of the Old Bell, Holborn, by whom the same was paid to the prisoner. On communication with Mr. Boase, it was found that the shares were forged, the transfer also being in the prisoner's handwriting, and Mr. Fuller had been obliged to make good the shares to the purchaser. The landlord of the Old Bell confirmed this evidence, stating that the prisoner had, in giving the receipt, signed the name of Mr. Boase. The receipt and letter to Mr. Fuller were evidently written by the same person; and it appeared, from the evidence of Mr. May, detective officer, that there were several other cases against the prisoner, which, in a little time, it would be easy to establish. It was stated that the prisoner had recently married a young girl in the country, and that he had another wife alive at the time. The prisoner was ultimately remanded by Alderman Lawrence until next week.

**WASHINGTON CHEMICAL WORKS—PATTINSON'S PATENT WHITE LEAD.**—On New Year's day, Mr. H. L. Pattinson and partners, of the Washington Chemical Company, commenced the manufacture of white lead by his patent process, in the extensive works at Washington, recently erected for that branch of their manufactures, when a numerous party of ladies and gentlemen witnessed the grinding of lead ore, and its subsequent transmutation (without being smelted) into a colourless liquid. On the mixture of this liquid with another, equally colourless, white lead of the most brilliant purity was produced. The wood-work of the manufactory is painted with this white lead; and it is remarkable, not only for its purity but for its body—which is so desirable a quality, and which has hitherto proved so difficult of attainment. The company expressed much gratification at the admirable arrangements of the manufactory; which is entirely free from noisome smell, although gas is generated in the process, which, if liberated, would prove highly deleterious, but is imprisoned and converted into a valuable article of commerce.—*Gateshead Observer.*

**NO COAL IN CALIFORNIA.**—Mr. P. T. Tyson, of Baltimore, as the result of a scientific visit to the late territory of California, effectually contradicts the reports of a plentiful supply of coal there in a communication to one of the departments at Washington; and it seems likely, he says, that the same geological features extend from near the Oregon boundary to the southern terminus of Lower California. An inspection of the various localities where coal has been reported to exist proved that every one of those beds described as of "the best quality for steaming," were composed of either lignite or bitumen, or something or other still further removed from the character of coal. It is to Vancouver's Island, Mr. Tyson says, that California must look for supplies, unless they may be obtained from Oregon.—*New York Journal of Commerce.*

**HOLLOWAY'S OINTMENT AND PILLS, A CERTAIN CURE FOR BAD BREASTS.**—Extract of a letter from Mr. F. Turner, grocer, of Penzance, dated December 13, 1850.—"To Professor Holloway.—Sir,—It is with pleasure that I acquaint you of the wonderful cure effected by the use of your invaluable ointment and pills. My wife suffered for more than six months from a dreadfully sore breast, and which her medical attendant found impossible to heal. She then tried your medicines, which, in little more than a month have effected a perfect and radical cure, to the astonishment of many persons who saw in what an awful bad state it had been."—Sold by all druggists, and at Professor Holloway's establishment, 244, Strand, London.

Sir,—not allow publication of the contents of the letter to be made public. All to which Mr. V. of a mine equal to the adjoining howling through.

In an interest can then be the extension of the increase to other straightened they resolutely stones to show of their "astomical" wilful in one minute plan, and By this and, of son taken to pendic.

It could lers, who rate part work spot from as though a quarter not "er."

[We respond appear i

Sir,—last week's sol's divid not reach dividend. Ballew's Spearm Carn Brei One made

Redr [We that each his paper

Sir,—weeks ago had conce my min nications sent as a "Inspe

I expect "A Mine ground u tin than As I am two of I, and shall venturers have an "Queen"

"St. Ju and 1 am at 2s. 9d. we could the work; the 116, t this in gro

The fol communiti, bei *Pennam* Consols ad when we t the origin deed, the he gave e good barg the *Mining* that it was mine was that one pl

Sir,—S ings had party have much obli has comm Lower (Havin and have

Sir,—I am lowing m (which w from Bodu tin produ any other we sink t 8*l.* per sh which h vestment, surest an Spring

G Sir,—I ill-natur quiring if avowedly ability, for rest. Por is the nam quire of the well acqui lect aboul plication them have London

45



## COMPENDIUM OF BRITISH MINING.

SIR.—I notice in your last paper that Mr. Watson's engagements do not allow of his giving as much of his time to this matter, on its third publication, as he could wish, and soliciting the aid of your correspondents to supply what he has not been able to attain. As far as my humble mite can contribute thereto, it shall be devoted to so desirable a purpose, sincerely wishing that I could enlist mine managers and pursers, "One and All," to "furnish forth" such information as the subject requires, and which they (best of any) have it in their power easily to render.

Mr. Watson, in his second paragraph, states—1. "The bounds, or limits, of a mine, are marked generally at the surface by large stones, placed at equal distances."—2. "Considering that many of the mines immediately adjoin each other, and the bounds are only marked out above, it is astonishing how few instances occur of the miners employed in one mine breaking through their limits into the sett of their neighbours."

In answer to the first, I have never found in all the setts I have been interested in that the bound stones are "placed at equal distances;" nor can there be any need thereof. Some setts have only four stones set up at the furthest corners, east, west, north, and south—sufficient to show the extent in length upon the course of the lodes, and the width bounding in all the lodes the sett contains. The number of stones certainly increase when the sett is bounded either way by other lords' lands granted to others—such as in lanes, roadways, leats, or water-courses, out of the straight or the direct line; then stones are placed at the various bendings they respectively may have. In such setts I have noted as many as ten stones set up, but not "at equal distances;" and even this is done merely to show how far the different lords' rights extend, and, for the protection of their property, many of them placed there from time immemorial.—2. I see nothing "astonishing" in this; whilst the contrary would not only "astonish," but cause many a captain to lose his jacket; for it is only by wilful intent, ignorance, or want of judgment, that "miners employed in one mine could break through their limits into the sett of their neighbour."

It is the duty of captains to understand dialling, and keep a working plan, and those who neglect either are no longer worthy their wages. By this any agent can know exactly where the men are working "below," and, of course, direct the pickmen accordingly. How else, as Mr. Watson must remember, could they at Tresavean Mine, in 1840, have undertaken to put down from surface to the 276 fm. level under a new perpendicular shaft (say, 320 fms. deep) in two years and two months?

It could only be done by a full dependence on the judgment of the diallers, who, convinced they were "quite correct," immediately set 24 separate paces of men to rise and sink from level to level—in all 144 men, at work day and night; and the result proved that by attentive dialling, any spot marked out at surface can be shown below at any depth. Upon holding from top to bottom, the perpendicular was found throughout as perfect as though they had sunk the whole distance, which might probably occupy a quarter of a century. I think this enough to prove my second case, if not "errors excepted."—ARGUS: *Truro, Jan. 7.*

[We have received a further communication on this subject from our correspondent, embodying some interesting statistical information, which shall appear in our next Journal.]

## MINE DIVIDENDS.

SIR.—In Mr. Watson's paper on the Progress of Mining, in your Journal of last week, he states that—"In Ballewidden, Great Work, and Spearne Consols dividends are either due, or have just been declared, but the accounts have not reached us; and in regard to Carn Brea, we are not certain whether another dividend has been declared or not." Allow me to inform your readers, that Ballewidden made a dividend 31st December, 7s. 6d. per 100th share, say £ 609 0 0 Spearne Consols, 30th December, 5s. per 128th share ..... 640 0 0 Carn Brea, 30th December, 2s. per 100th share ..... 2000 0 0 Which Mr. Watson has omitted, besides the

One made 31st December, 2s. per 100th share ..... 2000 0 0

Additional dividends ..... £3249 0 0  
Redruth, Jan. 8.  
[We are obliged to our correspondent for his letter, but we must remind him that each of the above dividends were declared after Mr. Watson had written his paper.]

## MINING IN ST. JUST.

SIR.—An anonymous letter having appeared in your Journal, two or three weeks ago, respecting Wheal Augusta, I was induced to reply thereto; and had concluded that gentlemen in that district would not again meddle with my mining operations, without attaching their names to their sincere communications. However, I find myself again assailed by the letter to the brokers, sent as a caution to buyers, and in a disguised hand, to this effect:—

"Inspect Spearne Consols: she is not as represented, but poor.—A MINER." I expect to be on the mine on Friday, the 17th inst.; and if the writer is "A Miner," and will meet me there, I shall feel a pleasure in going underground with him—when, if I am not mistaken, he will see a better course of tin than is to be found in any other mine in that district.

As I am in receipt of Capt. Hocking's report to-day, and also a letter from two of our principal shareholders, in reply to a letter I sent them on the subject, I am relieved from the necessity of entering into the merits of the case; and shall beg as a favour that the agent's report, and the letter from our shareholders, appear in your Journal in due form, when the discerning public will have an opportunity of judging for themselves.

*Queen's Arms, Cheapside, Jan. 8.*  
"Sir, Jan. 6.—Our setting on Saturday last, the 4th instant, went off well, and I am happy to inform you that we set a pitch in the 116 fathom level to six men; at 2s. 9d. in 16, and we believe this pitch will break 2000 worth of tin during the month we could set two splendid pitches more in the bottom of this level if we could discharge the work; but when we get our 128 fm. level under this tin, and the winze through from the 116, then we shall have a very much better chance than we have had as yet to work this tin ground; so we must look for better days to come.—N. HOCKING."

## SPEARNE CONSOLS.

The following is the letter referred to by Capt. Carthew in the preceding communication, and to which we do not hesitate for a moment in giving publicity, being perfectly satisfied of the respectability of the parties:—

*Penzance, Jan. 6.*—We have only to say, we are not at all the less pleased with Spearne Consols adventure because of the anonymous attempt at treacherousness of its value; and when we tell you so, you must be sure of this from the fact, that although holders from the origin of about one-fourth of the mine, we do not want to sell, nor have we ever; indeed, the writer was so satisfied that Spearne Consols was not poor, that on Monday last he gave eight shares in Ballewidden for 1-128th in Wheal Spearne, and thinks he had a good bargain. However, to the point; having seen a communication from Mr. Crofts, in the Mining Journal of the 4th inst., that Spearne Consols was not reported, we beg to say that it was; and that the report was satisfactory to every adventurer, as proving that the mine was as good as she ever had been, that we should continue to receive dividends, and that one piece of ground was worth 1000, per fm.

TWO SHAREHOLDERS.

## THE BRYNTAIL MINE.

SIR.—Seeing in your Journal of the 28th December that Chancery proceedings had been commenced against this mine, on account of the lord of the property having granted the working of the mine to a second party, I should be much obliged if you could inform me who is the lord—who is the party that has commenced the Chancery suit—and if the mine is still working?

*Lower Broughton, Manchester, Jan. 8.*  
[Having had similar inquiries from other correspondents, we insert this letter and have no doubt the parties interested will render all necessary information.]

## WHEAL TRESCOLL.

SIR.—Having been lately appointed pursuer to this company, and having, with competent persons, examined the sett, I should feel obliged by your allowing me to make the following statement in your Journal:—This mine (which was originally commenced by four adventurers) is situated four miles from Bodmin, on the St. Austell road, near the Rocks and Beam Mines. The tin produced sells at from 10s. to 15s. per ton more than the price obtained by any other tin mine in the county. We are now at 25 fms., and every fathom 8s. per share, and the amount received from the sales of tin upwards of 20000, which has also been expended on the mine. To parties seeking a profitable investment, this mine appears to me as offering great advantages, based upon the interest and best information it has been possible to obtain.

*Spring Gardens, Manchester, Jan. 8.*  
ADAM SCHOLES LEECH.

## GREAT WHEAL MARTHA—GREAT WHEAL SHEBA.

SIR.—In your last Journal is a letter with the above title, containing some ill-natured remarks on the former, and a few puffs for the latter mine, and inquiring if you can tell the writer who the Wheal Martha Company are, avowedly for the purpose of enabling him to satisfy himself of their respectability, for his guidance in applying to continue in the mine his former interest. Perhaps, you will be good enough to inform your correspondent that it is the usual and more proper way, when such information is required, to inquire of the pursuer, and especially so when, as is the case in this instance, he is well acquainted with the name and address of that person. If, however, his objection for shares would be too late; for I happen to know that the whole of them have been taken up.

A SHAREHOLDER IN THE LATE AND PRESENT COMPANY.

## SOUTH MARIA MINE.

SIR.—Having had many applications for an interest in this mine, I should feel obliged by your allowing me to state that, owing to pecuniary difficulties, some of the adventurers cannot carry on their interest, and have resigned about 300 (1000ths) shares to the company, who now offer them to respectable holders at 12 each; 800 more, I believe, may be obtained from poor holders at the same rate. South Maria, I may add, is situated direct west from the Great Devon Consols sett, and is divided from it only by the River Tamar. The workings comprise a shaft 20 fms. from the adit level, cased and divided, from which five east and west lodes have been seen by a cross-cut of about 100 fms. Wheal Williams's south lode, which produced many tons of ore in that sett, a few fms. north of South Maria, was also cut in the said cross-cut, and meets our No. 1 lode, south of shaft, about the 34 fm. level, according to the present inclination, and at a greater depth the five lodes form a junction as they now underlay. Two caunters have been opened, also the great cross-course, 80 fms. west of shaft, from which large stones of lead have been taken, shallow, and underlies east; this last lode is considered by many a good paying one. Another caunter has recently been cut in the Great Devon Consols sett, near the Tamar, not yet seen in the South Maria further than the wheel-pit, where it was a rich looking soft gossan, ore throughout. On the whole, we might venture to say that if any spot untried promises a good mine it is South Maria. The lodes seen in the 20 fm. level cross-cut were, in spots, rich with ore, and ore generally in a change of ground, which indicates almost to a certainty riches in depth. About 40000 has been spent in necessary buildings, water-wheel, flat-roads, pulleys, stands, horse-whims, bobs, &c.—J. SECOCMBE: *Tavistock, Jan. 7.*

## MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

TRESAVEAN COPPER MINE (Gwennap).—The following is a list of the dividends declared during the present workings:—

1828—45s. per 96th share.....	£4,330	1838—390s. per 96th share.....	37,440
1829—197s. 13s. 4d.....	10,336	1839—340s.....	32,640
1830—175s.....	16,800	1840—195s.....	18,720
1831—297s. 1s. 8d.....	28,520	1841—155s.....	14,880
1832—405s.....	38,880	1842—135s.....	12,960
1833—630s.....	60,480	1843—92s. 10s.....	8,880
1834—490s.....	47,040	1844—35s.....	3,360
1835—310s.....	29,760	1845—8s.....	768
1836—300s.....	28,800	1846—15s.....	1,440
1837—340s.....	32,640	1847—15s. 10s.....	1,488

Making a total of 46800. 15s. per 96th share = 449,352.

The mine had divided quite as much profit in the several former workings. It was resumed in 1817 by Mr. Mancur (since of the Alten Mines), Captains James and William Martin, and Mr. James Michell. The late Mr. Rueben Major, J. J. Borlase, and several other shareholders, were induced to abandon their shares, by the advice of Capt. W. Francis. The late Capt. T. Tesague then took up a considerable share, and after several years' struggle, and the outlay of 14647. 12s. 8d. to end of 1827, the fortunate holders shared in dividends, to end of 1847, 449,352s.—say, 46800. 15s. per 96th share. The mine is in a granite hill, between the 5th and 6th milestones on the road from Penryn to Redruth, in the lands of the Right Rev. Canon Rogers, who has received a very large amount for dues. It is comparatively a dry mine, one steam-engine, of 85-inch cylinder, drawing all the water therefrom, as well as from Treviskey and Barrier Mines on the eastern run of the lodes, and Trethellan, Brewer, and West Trethellan on the westward. Treavean had five steam-whims, for drawing up the ore and attle, crushing, and other purposes, when from 1000 to 1250 persons, male and female, underground and at surface, had full employment. At present only two are employed, and a third occasionally—the number of men and boys not above one-third there was formerly. The machinery and stock may be worth about 1000 each share, or 10,000. The steam-engine at Harvey's sump-shaft is 12-feet stroke in the cylinder, and 10-ft. in the shaft, lifting 60 tons of water each stroke, which, with weight of 1000 fms. of rods, set offs, main beam, four balance-bobs and boxes, gudgeons and plungers, and 400 fms. of pitwork, increases the load to be lifted every stroke to nearly 600 tons. Harvey's shaft is 12 by 6 ft., and cost nearly 20,000, sinking from surface; it took two years and two months, by 24 setts of men, one-half sinking, the others rising from the different levels below. It is down 286 fms. under adit, or sea level, which is about 40 below the surface. The old eastern engine-shaft is down 303 fms. below adit; the man engine-shaft 265 fms. Here they have a 56-inch double rotary engine, acting on two small wheels, which act upon two of larger dimensions, moving two perpendicular wooden rods, on which, about 12 ft. apart, are projections, with iron handles, 6 ft. above; so that the labourers, by stepping from one to the other when the movement up and down brings them to a level, and each man taking hold of the handles, two can safely pass at every such stage from top to bottom. This erection has handsomely repaid the proprietors the 26000 outlay; and it is much to be regretted that there is only one other in all the Cornish mines. It is down to the 248 fm. level under adit, and with a 24-ft. stroke in the two rods, works easily 12 strokes a minute, going considerably faster when required.

TRETHELLAN COPPER MINE (Gwennap) is on the same lodes as Treavean, a continuation westward for about 84 fms. long, and drained by means of Harvey's engine, at the first named mine—the adventurers contributing proportionately to the water charge. The concern is in 120 shares, and to commence operations a call of 5s. per share was made. Prior to its being all paid up the workings became profitable, and considerable dividends have, from 1837, been paid to the fortunate shareholders, as specified in the Journal. It has a steam winding engine and crusher, and only one shaft, which is down 13 fms. below the 136 fm. level below adit, which is 60 fms. from surface. The following levels have been driven right through the sett, and into Wheal Brewer, which is west of it, and upon the same lodes—viz. the 27, 45, 60, 75, 100, and 136.

WHEAL BREWER.—The same levels have been driven on the course of the lodes throughout this sett, and are all into West Trethellan.

NORTH BULLER is situated in the Redruth district, parallel with and near West Buller, and the North Basset lodes run through the sett. It is partly glebe land of the parish of Redruth, and partly land belonging to J. Wentworth Buller, Esq. The works were commenced by a very spirited company, in April last year. A first-rate 36-inch cylinder steam-engine, with all the latest improvements, by Messrs. Harvey, of the Hayle Foundry, will shortly be completed, and set to work. Two shafts have been sunk 100 fms. from each other, and they will be both worked at the same time, by means of flat-roads. We cannot let this opportunity pass without noticing the extraordinary indications of great riches which have presented themselves in sinking the perpendicular engine-shaft. This shaft was sunk in order to intersect a very promising lode in depth, called the Louisa lode, but in sinking the shaft, four other lodes were discovered passing through it—three of them producing rich stones of copper ore at a shallow depth, and the fourth an exceedingly rich lode of grey copper ore, supposed to be as rich as any in the county. It is intended to drive a level on this lode as soon as practicable, and raise ore for sale. The engine will shortly be completed and set to work, when all the other lodes will be proved in depth; and it is the general opinion of practical men in the neighbourhood, that this mine bids fair, in a short time, to rival her rich neighbour, West Buller.

WHEAL UNY is also in the Redruth district, and adjoins North Buller; it is on the Redruth glebe, and is held under the rector of Redruth and the Ecclesiastical Commissioners of England, with the consent of Lady Bassett. The large Wheal Uny tin lode was worked upon some years ago, and a considerable sum was spent, principally in surface operations: it was never properly worked, only one lode being tried out of a score that run through the sett. A portion of the Carn Brae lodes run through this ground; and it is the opinion of eminent geologists, who have inspected it, that it is of a most promising character, and is almost certain to be exceedingly rich in metalliferous deposits, the granite and killas forming junctions, and overlapping each other in all directions. Much expense was incurred and trouble taken to obtain the sett, and it is now divided into 1024 shares, the whole of which were instantly taken up, principally by the North Buller adventurers, and it is to be conducted under the same able and economical management. The works were commenced on the 1st inst. with great vigour, and by what we know of the respectable adventurers, and the spirited managers, together with the locality, we prognosticate that before the same time next year she will have raised and sampled many hundred tons of ore.

SOUTH CRENNER MINE (copper) is in Crowan, situate in the centre of the celebrated mining districts of Redruth, Helstone, and Camborne. It is now proposed to bring this mine again into operation, for which purpose a company is forming, the estimated capital required for all costs being 10,0000, of which 60000 may be needed for the first year. This mine, which comprises an extensive sett, was worked with success for some years prior to 1825, when, owing to disagreements between the parties, the operations were suspended, with the intention, however, of being speedily resumed, as the pump and pit work were left in the shaft. In carrying out the works at present contemplated, the beneficial effects of the outlay already made will be largely experienced; and as soon as the water can be drained, judging from the ore in sight, and the large quantity already broken for bringing to surface, it is calculated that the mine would be again in a paying condition. A powerful 70-inch steam-engine will be one of the first essentials provided, and the draining of the mine forthwith commenced. The entire sett has been recently surveyed and reported upon by Mr. Evan Hopkins and Capt. Richards. The first named gentleman states that the mine is "in the metalliferous clay slate that laps on the western margin of the granite near Crowan, embracing the junction of the two rocks, and also two cross-courses, being most important combinations of favourable circumstances to cause a local accumulation of minerals." He recommends, on renewing operations, that the shaft should be sunk as quickly as possible to the 100 fm. level, and push in the levels east, so as to develop the most important portion of the sett, and cross-cut into the south lodes within the limits of the same productive land, by which, according to the indications, the mine cannot

fail of being rendered very productive, more especially as he anticipates that a large quantity of good ore will be discovered at an early period. Under all circumstances, it is not deemed prudent to commence with a less capital than 10,0000. Captain Richards goes into various details respecting the old and new workings, and thinks the expenditure for the first year may be limited to a steam-engine, a double acting whim-engine and crusher, with suitable pitwork of every description. He unreservedly avows his opinion that the adventure boldly, and at the same time prudently, carried out, is a first rate speculation. The mine is divided into 1394 shares, of which 144 are reserved free to the owners, and of the remaining number 12 10s. out of the calls per share is to be paid to the owners of the sett for their interest therein. It will be worked upon the Cost-book System.

WHEAL TREMAR (copper) is in the parish of St. Cleer, near Liskeard, adjoining the celebrated South Caradon Mines, and in the immediate vicinity of West Caradon Mine, with lodes running parallel, and possessing a constant supply of water for dressing purposes, and other natural advantages likely to enhance its value as a speculation. An adit level has been driven north from 70 to 80 fms., on three lodes, producing stones of yellow ore; the lode in the end is 2 ft. wide, and of a character resembling the South and West Caradon. A shaft has been sunk about 5 fms. on a similarly good lode, the gossan, peach, prain, black and yellow copper ore, being of a rich description. It is intended to erect a 40 in. cylinder steam-engine, and sink the shaft to a moderate depth, which can be effected for 15000. It is a significant fact, as regards the estimation in which the mine is held, that 424 out of the entire number, 1024, have been taken by the South Caradon adventurers. Messrs. J. Osborn and Taylor, in their report, state that the south lode is "about 2 feet wide, almost wholly composed of a very fine gossan, presenting as promising an appearance as it has ever fallen to our lot to observe so near the surface." The advice they give to the adventurers is "to prosecute the mine with vigour, having a strong hope that you will be amply rewarded for your outlay." The reports of Messrs. R. Dunstan and O. Trewen are also in favour of developing the wealth of the mine with all possible speed. Not more than 4s. per share, it is believed, will be required before the mine is in profitable work; and we see it announced that more than half the shares are already taken up.

The workings at WHEAL BROTHERS are about to be resumed by a respectable company of adventurers. To this mine, it may be remembered, considerable importance was attached by the late Capt. Malachy, whose opinions have frequently been confirmed by other eminent captains, and the cessation of operations was owing to other causes than the actual unproductiveness of the sett.

NORTH WHEAL BATTERY (tin), about half a mile to the westward of Penzance, is about being set to work. About three years since this mine was carried on by Mr. Penrose and others, and we understand the prospects are very good.

The PARK MINE, near Wrexham, adjoins, and the vein is parallel with that of the Minera Mines. It was discovered by a poor miner about 35 years ago, and returned a clear profit of upwards of 100,0000. in about 13 years, when the workings were stopped, owing to the company having worked to the end of their take, where another company had taken the ground to the east of them, and raised several hundred tons of lead ore in driving 60 yards in length and an average of 8 yards deep below the level, which is on an incline to follow the run of ore; and eventually nothing more could be done in this end, without an additional expense of about 20000. in re-opening on the vein further to the east, and the ore then selling at about 6s. per ton, with a royalty of 40s. the mine was abandoned, and when the old leases expired the present company secured both mines, and have now upwards of a mile of virgin ground before them, with two or three cross veins intersecting their vein in the new ground, which can be worked without pumping-engines to the depth of 350 yards, the present depth being 160 yards. The sett extends over 202 acres, being a mile and a quarter on the course of the vein, and a quarter of a mile wide. This is one of the most promising lead mines at present in North Wales. The lease has 21 years to run, at a reduced royalty per ton for lead; it is divided into 128 shares, of 500 each, 10s. of which is called up, and the work done to the advantage of the present company is worth many thousands of pounds. Good ore had been left at the extreme end when the mine was stopped, and the last price paid is 3s. per ton, washing and all included. There is a parallel vein in the sett, which has not as yet been tried in the great limestone, although the small quantities of ore have been found in it near the surface. One of the most important, and, indeed, the largest cross veins, will intersect the Park vein, about 100 yards east of the present driving in the vein, which will be reached in a few months; and from its favourable appearance at present, a rich discovery is expected, as the depth will be full 200 yards from surface, and all in virgin ground. It was at the junction of this cross vein with the Minera vein that the largest body of ore was met with in that mine, and from which, according to report, 50,000 tons were raised in 10 years' working. There is every reason to hope for most satisfactory results, and the raising large quantities of ore, which can be brought to grass at as little, or less, cost than any other mine in North Wales. There are also two other veins intersecting the Park vein about 450 yds. east, on which, however, nothing has yet been done; but a large quantity of ore has been raised out of the one called the Hafod vein, at some distance from where it crosses this take.

MERLYN MINE.—The principal agent of North Pool having inspected this sett, reports that, previous to the present company's operations, it had been worked near the eastern boundary by a party of miners to the 15 fm. level from surface, which level was extended 7 fms. through good lead ground; above this level 240 fms. of ground were taken away, worth 54s. per fm., and yielding lead to the value of 13,0000. In the bottom of these workings there is still a good lode going down, and it is intended to sink the present shaft 10 or 15 fms. with a horse whim, and open in the other lodes traversing the sett. The agent goes on to say he had seldom seen a mine holding out such chances of success, and doubts not that great quantities of lead can be raised at a trifling expense. This report is considered as fully confirming all the statements made as to the richness of Merlyn.

WHEAL ENYS (tin), which is situated at Porkellis, in the parish of Wenden (one of the richest tin districts in Cornwall), has been worked from time to time by different adventurers, but who appear never to have possessed the means necessary for its adequate development. As far back, however, as 40 years since, when only partially worked, large quantities of tin were obtained, with the aid only of a water-wheel in the shape of machinery. The company now formed for working the mine obtained a grant about four years ago, and subsequently a lease for 21 years, at 1-16th dues, from John Samuel Enys, Esq., and since that time they have cleared, secured, and continued the adit throughout the sett. Several shafts have also been cleared and secured, and cross-cuts driven to intersect the lodes, and in these operations they have returned 40000 worth of tin of excellent quality; and, from the indications in every part of the sett, very sanguine expectations are formed of the results of the future workings. The mine has been inspected by Capt. Richard Eustice (of Stray Park Mine), and Capt. Michael W. Marten. The former says—"There is no tract of land, to my knowledge, in the county so abundant in mineral veins, lying together in such a convenient position for a well-arranged system of mining, and so situated as to render a small steam-power sufficient for the proper drainage of the whole." He also estimates that 100000 will be sufficient to provide steam-power and pitwork for draining the mine. Captain M. W. Martyn states—"Had I not inspected Wheal Enys, I would not have believed it could have presented such prospects of success;" and the opinions given by both are so favourable as to warrant every effort to put the mine in a proper state for working. A number of shares (500) forfeited by former adventurers in consequence of arrears, are now offered at a moderate sum per share, free of all liabilities to the present time; and as soon as the shares are disposed of, a 36-inch cylinder steam-engine will be erected, and the utmost extent of outlay for engines, pitwork, necessary erections, and putting the mine 50 fms. under the adit, is calculated at 300000, which, as tin will be raised sufficient to meet part of the working cost, will be reduced to 20000. The mine is divided into 1024 shares, and will be conducted on the Cost-book System.

WEST WHEAL FRIENDSHIP.—I am glad to find that the adventurers are getting over their difficulties, and that they are again in a position to see the 43 fathom level, which has been so long under water. The lode in that level, or rather the capels, were cut into in May last, and the great increase of water from the lode drove the men from the end, who were obliged to be quick in getting away, to save their lives; from that time to the present attempts have been made to drain the water to the bottom, which hitherto have proved useless. Mr. Smith, one of the engineers at the Devon Great Consols, having been appealed to, effected some alterations in the length of seeing the mine at a arrangements, from which there is every probability of seeing the mine at a depth of 50 fms. Mr. Smith's opinion has also been taken as to the machinery necessary for the future operations, whether or not a steam-engine will be required, and that gentleman considers that there is a sufficient supply of water in the neighbourhood to keep the water at a depth of 180 fms.; this will be an important matter to the adventurers. A committee is formed to inspect the water-courses, and to assist Mr. Smith in carrying out his proposed operations. Capt. James Prout stated at a meeting that the pump-roads, which had been under water so long a time, were very much eaten away by the strength of the water which the lode produces, and the tools and pumps were also much stained with copper. I must also say that much praise is due to Mr. J. Newton, the pursuer, and Capt. Prout, the agent, for their united exertion and energy in carrying out this concern. I have no doubt we shall soon see West Wheal Friendship on the list of dividend-paying mines, and with her neighbour, Wheal Friendship, which has made in the past 50 years from 360,000 to 400,000 profit. There can be no doubt on the mind of any practical man that this is the same lode as the Wheal Friendship—the strata, and everything about it, are of a precisely similar nature; there has been 40000 expended in this undertaking; the shaft has been sunk 53 fms. A very good water-wheel, 36 ft. high, has been erected, with a long run of flat-roads, capstan and shears, and all the necessary pumpwork, to the present depth, besides the requisite buildings, account-house, store-room, and smith's shop. A call was made at the last meeting of 102400, which will be sufficient for carrying on the present operations for some time.



**PENANCE.**—The reports from the mines in this district are generally favourable. Our correspondent at Lelant writes that, from the present appearance of the Reeth, a profit may be expected of 1200l. quarterly. Wheel Margaret had been declining, but is now showing symptoms of improvement. There is also a more encouraging account from the Providence Mines. At Lelant Consols a further outlay will be required to try the new part of the mine, on Wheel Margaret lode, which is considered a good speculation. There has lately been a great improvement in Balcon Consols. The lode in the shaft is now reported to be worth 18l. per fm. for tin, and the lode in the eastern end 12l. per fm. East Wheel Reeth, a mine recently set to work, is well spoken of. The adventurers have put up a horse-engine, and drained the water. They intend driving to cut Wheel Reeth lodes. An engine is now being erected on East Wheel Margaret, for the trial of that mine.

**St. Just.**—In Penance Consols the levels on the north lode are down into settled ground; the 24 fathom level is reported as worth 12l. per fathom for 10 fms. in length. There is a bunch of tin on the south lode, and the average quality of the stuff throughout the mine is improved. West Ding Dong (Sancreed) is now cleared to the depth of the old workings, 18 fms. The bottom levels extend about 22 fms. east and west of the engine-shaft, the appearance of the lode being encouraging, worth in some parts 15l. per fm. Pitches have been set in the ends at 10s. tribute. The water is drained by a 36 ft. wheel, to which a six-head stamping mill is to be attached. Wheel Rose (Madron) has lately commenced working, the sett including the Tregavera Old Mine.

**TWARDREATH MINE.**—This sett, which is divided into 512 shares, is a very extensive one, adjoining Par Consols and West Fowey Consols on the east, on the continuation of the lodes, wrought in these mines and now being so successfully prosecuted. Messrs. Taylor and Sons are managers, and J. H. Tilly, Esq., of Falmouth, is the purser. An engine is to be erected near the western boundary, a little above the Par Bridge, in order to sink a shaft deep enough to cross-cut from it to the lodes in both directions. From the success of the workings on the same lodes to the westward, under the spirited management of the late Mr. Treffry, the adventurers indulge sanguine hopes of the results.

**PENDARVE AND ST. AUBYN.**—This mine, formerly called Wheel Nelson, is situated close by Mr. Pendarve's Lodge, on the road from Camborne to Prazee. It has recently been set to work by a Manchester company. It is remarkable that, on drawing the water from the mine there was found, in sight, in the 24 fm. level, about 8 fms. in length of a grey ore lode, worth from 15l. to 20l. per fm. The engine-shaft is now sinking below the 24 fm. level, for the purpose of cutting the lode 10 fms. deeper.

**MORVAN CONSOLS.**—A new mine, on the coast, about four miles east of Levant, is about being set to work under the direction of Captain Goldworthy. We understand that a very promising copper lode has been discovered, which can be tried by means of a water-wheel. The number of shares is 160, which are taken up principally by the Levant adventurers. —*Cornish Telegraph.*

**PETER TAVY AND MARY TAVY.**—Good and substantial machinery has been erected in these mines, which are now in full course of working. The summen are engaged in cutting down the engine-shafts—the ground is at present hard. In the lode good stones of ore are occasionally met with: as this is one of the Wheel Friendship lodes, there is no doubt that it will be productive in depth.

**THE VIRTUOUS LADY** is sampling 80 to 90 tons of fair quality ore monthly.

**NORTH WHEEL ROBERT.**—The working of this mine is resumed: two shafts are commenced from surface, and an adit and other work is in progress.

**WALKHAMPTON CONSOLS,** which is bounded by Frances in the west, and Wheel George in the east, is a kindly sett, and the water-wheel and pumps ought not to be suffered to rot and rust out. This valley bids fair to turn up large quantities of very rich ore; the mines being as yet quite in their infancy, and having already made considerable returns.

**PLAISTOW DOWNS.**—One of the best setts in this neighbourhood, and ought not to remain idle.

The lode in the Duke of Cornwall Copper Mine was cut this week, and is exceedingly rich in appearance.

It is said that Silver Valley will be set to work again by an efficient company. An inspection of the mine was made on Saturday by Capt. Lean, of Holmbush, and some other gentlemen, in contemplation of the proposed operations. —*Plymouth Journal.*

## Mining Correspondence.

### BRITISH MINES.

**ALFRED CONSOLS.**—The lode in the 70 fm. level, east of Field's engine-shaft, is from 9 to 10 ft. wide; this is the whole breadth of the lode; 5 ft. wide of the north part is pretty ore; the remaining part on the south is capels, mixed with copper ore, worth in all 60l. per fm. The stopes over this level, east of said shaft, are looking extremely well, worth quite 150l. per fm. There has been no ground broken in No. 2 winze under the 70 fm. level since the last report, nor can there be until the 80 fm. level is extended further east. The lode in the winze sinking under the 60 fm. level, west of Wyl's shaft, is about 12 ft. wide, worth from 140l. to 160l. per fm. for copper ore. The 70 fm. level east is from 1 to 2 fms. west of this winze. We hope to complete the pit-work in a few days from this time, after which we shall resume the driving of the 80 fm. level, and be in a regular course of working.

**BARRISTOWN.**—The ground in the cross-cut still continues favourable for driving, and is still a very congenial stratum for mineral; and we often meet with spots of lead, blende, and munda—all of which may be considered good indications, and show that the ground at the present point is strongly mineralised, and, being further south than any other level in the same mine, may be received as a good omen. The lode in the end east is small and poor, and for the present suspended, and the men put to drive west on the same lode, which is 8 in. wide, producing stones of lead, and, on the whole, presents a kindly appearance. I have this day set a pitch on tribute in the back of the adit at the eastern part of the mine, near the great slide, which I hope will be found productive.

**BAT HOLES.**—We have cleared up the engine-shaft to the bottom, which we find to be 45 fms. 3 ft. deep below the adit level. At present we are engaged in putting in shaft collar 3 ft. above the bottom of the shaft, preparatory to cross-cutting to the Wood and Cornish lodes, which we expect to commence this week. The California lode is without any material alteration; taking the average of the ground stoped and driven for the last month (Dec.), it has produced about 1 ton of lead ore per fm., which we expect will be equalled for the ensuing month. The ground is favourable for driving on Barrett's lode, producing occasional stones of ore. In consequence of the men having their time taken up in holing the air-shaft, which was sunk in shale, our sampling for the past month is less than was anticipated; this we expect to recover in the present month.

**BEDFORD UNITED.**—The following is the report from Captain James Wolferstan, read at the meeting on Wednesday:—In driving the cross-cut south from the engine-shaft, in the 115 fm. level, we have during the last week cut the south lode. It consists of two branches, with a horse of killas between them; the east branch is about 9 in. wide, and composed of capel, spar, and munda, with some spots of ore; the ground is much improved, and we may expect a corresponding change in the lode by driving a few fms. eastward. In the 115 fm. level, west of Andrew's winze, the lode is large, and principally composed of fluor, with fine stones of ore in places. In the eastern end in this level the lode is 2½ ft. wide, producing good stones of ore, in a matrix of quartz, fluor-spar, and munda. The appearance of the lode in both ends is highly promising. The ground is also more favourable, and the underlie of the lode is less than at the level above. We may, therefore, reasonably expect an improvement of some importance in the course of the current month. In the 103 fm. level the lode continues to be worth full 10 tons of good ore per fm. Slight changes in the size of the lode have occasionally occurred, but with this exception it has been the same as at present for the last three months; we have, therefore, an extensive run of ore ground laid open, and whole to the 90 fm. level. In Arscott's winze, sinking from the 90 fm. level, the lode is yielding about 10 tons of ore per fm.; this winze is sunk about 7 fms., and is now about ½ fm. before the 102 end. In the 90 fm. level east we have been driving on the north side of the lode, but are not cutting into it; the lode, so far, is composed of spar, munda, and ore. We propose to continue to cut until we reach the south wall. In the 80 fm. level east the lode has not been taken down or cut into for some time past, and as the capels appear to be large and hard, we think it desirable to continue to drive by the side of the lode until the end of this month. The ground in the cross-cut north, in the 47 fm. level, is without any material alteration; the end, however, is getting wet, and there are other slight indications from which we infer the proximity of the Tavistock lode. The tribute department is in a highly satisfactory state, and will enable the present returns to be fully maintained for a long time. The last sampling was computed at 136 tons; the next will be about 140 tons, and I purpose to continue to sample the same quantity until we meet with ore in the 115 fm. level, when we may confidently expect to be in a condition to warrant our making a considerable increase.

**BODMIN CONSOLS.**—The ground continues to improve as we get down with the engine-shaft. We are now down to about 8 fathoms below the 13. Should the ground continue as it now is, we shall be down to the 25 fm. level in a month from this; so that, by the end of February, we shall see the lode at that point. The water continues to increase in the shaft, so that it is necessary to get a longer lift—say, 104-in. This we must have before we cut the lode. The other parts of the mine continue much as last reported, except No. 2 winze. The copper lode in its underlay has just left the winze, so that we shall not see much more of it at this point; it continues to yield some good stones of copper.

**BODMIN MOOR CONSOLS.**—On sinking on the lode to the west of our shaft we have had an improvement, and have gone through the lode, which is 9 ft. big with regular walls on each side of it, and a flooken 15 in. big; the lode is composed of a blue peach, tinny throughout, and on carrying the flooken a good quantity of tin in it—it is in a beautiful stratum (granite), and can be worked at a small expense. The tin is fine, and the batch we sent last week fetched the best price, or as good as any in the county, being 5½ per ton, as the tin bill will prove, which I forward you. Messrs. Durbur were the purchasers. We are busy sinking our new shaft, which will take this lode in the 50 fm. level, and we are pushing on our deep adit with all speed; this adit will take our present lode 40 fms. deep on a further drive of 25 fms., and after going through it, will intercept our new discovery on a further drive of 18 fms. to hill, at a further depth of 55 fms.; and, on extending this adit to hill, on the course of our main lode, we shall gain 2 ft. in the drive of every fathom, for 40 fms., so that we shall have backs to cut as for many years to come. The tin we have returned is very fine, but, as we get deeper, it is my opinion that it will increase in quality, and, at the same time, be not wanting in quantity. We are about 400 fms. from killas, which joins our adit on the extreme north-west boundary. Our large wheel works well, and the stamps answer every purpose. I have measured the stream of water on the western part of the sett, and find it will drive a wheel with 12 additional stamp-heads when required; but I do not advise the erection of any further machinery until we intercept the lode in our deep level, as we shall then have ore to pay all expenses. There is no doubt of this mine, shortly being in the dividend list.

**BODMIN WHEEL MARY CONSOLS.**—The report states the water to have been forked on Monday last by aid of the small engine, and the shaft forked to be sunk 3 ft. below the 10 fm. level; a cross-cut is driven south about 10 fms., and has intersected two lodes, each of which are driven upon about 3 fms. From the second lode they have broken firmer and more settled yellow ore than seen in the mine for some time past; but it is not considered to be the lode from which the tributaries are raising ore in the adit. As soon as the shaft is put in repair, they will immediately commence to sink to the 20 fm. level.

**BORRINGDON PARK.**—We have cleared the run in the adit level, and forked the water in the shaft, and we expect to hole to the adit the latter part of this or the beginning of next week.

**BYRN-ARIAN.**—The lode in the 10 fm. level, driving west from the shaft, is at present disordered and poor. The stopes in the back of this level is suspended until the winze coming down from the adit is holed. The stopes in the back of the adit level west is still yielding 15 cwt. of ore per fm. The weather has been so rough, that we could not get a vessel to take 20 tons of ore to Holywell, but expect to ship it this week. We have advice of the pumps being shipped, and on their way to Aberystwith. We are now in regular course of drawing stuff and dressing.

**CALSTOCK CONSOLS.**—In driving east, under Kelly, we find the lode has much improved and is improving; it is composed of peach, a large quantity of munda, and good stones of ore. The Tamar Consols lode having been cut in the north part of the sett, the distance is now ascertained when it will be intersected in the eastern level, which will be in about 30 fms. more driving. About this cross-course, from the improving nature of the lode in the level, and the rich character of the gossan on the backs of the lode east of the cross-course, a fine productive lode for copper may be soon expected. There is now on our quay about 200 tons of munda for sale.

**CARTHEW CONSOLS.**—The No. 2 slide in the engine-shaft has given us a great deal of trouble, and much impeded our progress in sinking since my last, by frequently bursting the timbering; we have taken down a little of the lode this week, which shows very good stuff, the size of which can scarcely be determined, being somewhat mixed with the slide, but it carries with it a branch of lead about 6 in. wide, besides a good portion of copper and lead, which is to be found in sparry portions of it. The lode in the south end, 75 fm. level, looks well, and is yielding good work in copper and lead. The winze in the bottom of the 65 fm. level north has a very good appearance, the lode about 2 ft. wide, all tolerable good work. We have communicated the middle shaft from the 48 to the 65 fm. level, and in a few days shall be in a position to work the machine kibbles in the new portion, which will be found a great advantage to the mine. The lode in the south winze, in the bottom of the 45 fm. level, is much improved since my last notice of it, and continues to improve as we get down. The tribute pitches are looking well.

**DEVON GREAT TINCROFT.**—The lode in the adit end is yielding 150 sacks of good stamps' work to a fm., and the stratum is highly conducive to the production of tin ore; the price per fm. for driving is 90s., and the men to pay all the cost they may incur in spending the ground. The stopes in the back of the adit level are also turning out more tin stuff than heretofore, and of better quality, the lode being now upwards of 3 ft. wide, and, from present appearance, is likely to yield a large quantity of ore.

**DEVON WHEEL MARY ANN.**—We are glad to inform you that the lode in the deep adit level west presents a more favourable appearance than when it was last reported upon. The lode for some few feet driving has been intersected by a transverse branch of spar, which crosses the lode in an oblique direction from north to south; this interruption, we are glad to state, is leaving, and the lode getting into its usual settled appearance, being at present about 3 ft. wide, composed of spar, capel, peach, priam, and good spots and stones of yellow copper ore, now driving at 5l. per fm. From the highly favourable opinion expressed by gentlemen considered competent judges, as well as our own, we anticipate a good and lasting mine.

**DYFNWYM.**—During the past few weeks, the lode in the 32 fathom level, west of the shaft, has greatly improved both in size and quality; it is now about 3 ft. wide, worth 20l. per fm. The fore-breast is very troublesome for driving, in consequence of so much water issuing from it; driven during the past month, 2 fms. 4 in. 6 in., at an average price of 5l. 6s. per fm.; it is set this month (January) to four men, at 6l. per fathom; the 32 fm. level, east of the shaft, is still unproductive. From the dip of the ore ground in the 22 fm. level, I think there must be further to drive to intersect the ore ground. The 32 fm. level, east of the shaft, is still unproductive. From the dip of the ore ground in the 22 fm. level, I think there must be further to drive to intersect the ore ground in the 32 fm. level, which we anticipated at first. The lode is at present small, yet it is more promising than I have seen it for some time past; driven in this level during the past month, 3 fms. 3 ft. 3 in.; it is set now to two men for January month at 3l. per fm.; the stopes in No. 4, west of the whim-shaft, in the bottom of the 22 fathom level, is productive of lead ore, worth 8l. per fathom. This is certainly a most promising piece of ground; and, from the appearance of the lode in the back of the 32 fm. level, there is every reason to expect an improvement in this stopes shortly. The stopes No. 1, in the bottom of the 22 fm. level, east of the shaft, in the past month, has been productive of lead ore, worth now 3l. per fm.—set to two men at 2l. 10s. per fm.; the stopes No. 5, in the back of the 22 fm. level, east of the shaft, is still productive of lead ore, worth 7l. per fm.—set this month to two men at 2l. 10s. per fm.; in the 22 fathom level, west of sink steel ore, the lode seems much disordered; still it has a very promising appearance, and is producing some good lead ore, but not sufficient to set a value on. From the favourable indications that this lode presents above the 22 fm. level, and in the bottom of the adit level, there is every reason to expect a rich lode in this level in extending the level west on its course—set to six men at 4l. 10s. per fm. We are now making preparations to lay down a railroad in this level, the 22 west. By so doing, we shall facilitate the driving of this level considerably, and make a great saving in keeping this part of the mine clear of the stuff. All the ore ground that has been laid open above this level will be stoped away as soon as it is convenient for us to do so. There is a very promising lode gone down in the bottom of this level, which will ultimately be worked at a profit. Our new whim-shaft is nearly completed from the surface to the 22 fm. level; and, as soon as the railroad is laid down in the adit level, we shall then commence drawing through this shaft. As soon as the shaftmen have completed their bargain at the Castle, we shall then commence sinking the lower engine-shaft on to a 42 fm. level with all speed. At the Castle the shaftmen have been much hindered of late, in consequence of so much surface coming down, occasioned by the very heavy floods of rain which fell within the past 10 days. However, should nothing further transpire, so as to impede their progress, I have not the least doubt the shaft will be down to the 20 fathom level by the 20th January. We shall then commence fixing a lift of pumps (6-in.) from the 9 fm. level to the bottom of the shaft, cut a plat, and cross-cut through the lode, and then drive west on its course. In conclusion, I beg to state that we have at present a very promising mine, and one that bids fair to make remunerative returns by-and-by. We shall raise this month from the 32 fm. level and stopes 20 tons of lead or upwards. The 90 fms. of new chain for the whim-shaft is on its way from Aberystwith, and will be on the mine to-morrow.

**EAST BALLESWIDEN.**—Our engine-shaft has been at length made complete to the adit level, in order to drop the lift under that level. We shall now proceed to cut the ground, and put in ladders to take up the water in the adit level with all possible speed. Our sawyers are cutting timber to finish the wheel, and the smith is going on with the ironwork as fast as possible. I hope the wheel will be at work soon.

**EAST GUNNIS LAKE JUNCTION.**—The engine-shaft is cut down and made complete to the 16 fm. level; the lode where standing in the shaft is 3 ft. wide, and containing very good stones of rich yellow ore. On Saturday last, we dropped the lift under the 16 fm. level, and are now engaged in clearing the level that was driven on the east side of the lode, and a cross-cut driven to intersect the south lode. In the course of a few days, these drivages will be sufficiently cleared to admit of their being entered, and the lodes inspected. Our progress has not been so good as was anticipated. Owing to the late excessive rains, and the adit levels being insecure, it let down a great deal of water, passing through them from the very extensive old workings, both east and west of the shaft, which rendered it necessary to put in ladders over every suspected place. The difficulty, although not entirely removed, is so far overcome, that the wheel now keeps the water, going about four strokes; and we are not likely to be again impeded.

**EAST SHARP TOR.**—There has been no lode taken down in Hitchins's shaft since my last, the men having been engaged sinking in the country to the north. The ground is still killas, and very favourable for sinking. We shall have about 2 fms. more to sink in the country for bearers, elstern, &c., prior to sinking diagonally; the present depth of shaft from surface is 21 fms. The water continues as usual.

**EAST WHEEL GEORGE.**—The lode in the 12 fm. level, east of shaft, is small and unproductive; not being satisfied with this, we put the men to strip down the lode standing on the south about 9 fms. east of shaft. We find at this point the lode is very large, having cut in 9 ft. to the south wall, in which is seen good spots of ore throughout. We purpose immediately to drive south in the present end of this level, in order to ascertain anything is to be found at this point. The stopes in the back of the 12 fm. level, west of shaft, are without alteration, still worth 16l. per fm.; the stopes in the back of the same level, east of Crow's rise, are producing some ore, but not rich. The summen having immense quantities of water to contend with in sinking the engine-shaft, which is very much increased by the late rains, are getting on but slow in sinking the shaft, being now down 10 fms. below the level. We are getting on with the dressing as well as can be expected, considering the weather we have had of late.

**EAST WHEEL JOSIAH.**—The lode in the adit end south is large and of a promising character, of which we are carrying about 3 ft. of the western part; it is composed principally of flooken, spar, with a small proportion of munda, &c., likewise spots of copper ore at times; the ground is also very soft for driving, and it requires pretty much timber to be kept open—price 50s. per fm.

**EAST WHEEL REETH.**—I am now convinced, as well as the engineer, that the water-wheel is of sufficient power to draw both lifts with ease to the depth of the present shaft, so as to do away with every horse, which will be a saving to us of at least 25l. per month. We have six men still driving the 10 fm. level towards Wheel George bottoms; they are driving by the side of the lode, so as to get forward 2 or 3 fms. before taking it down; the water we get under the bottom of the shaft, as we may expect to meet with the tin. As you have determined to have an engine as soon as possible, it is now my opinion we had better draw the water with the stamps' wheel in the meantime, so as to clear the shaft, and keep on the end till the engine is ready. The expense will be only 3l. per month, and enable us to keep on progressing at a trifling expense.

**EAST WHEEL RUSSELL.**—Since my last report we have sunk Hitchins's shaft to the bottom of the adit (about 12 fms.), and we have commenced cutting the plat; the lode is composed of gossan, priam, quartz, and capels of a superior quality. Marichon's shaft is sunk to a depth of 9 fms., producing the same quality stuff as at the time of my last report, with a quantity of greens of copper. The deeper we sink the more I am excited with the appearance of the lode.

**ESGAIR LLEE.**—The caunter lode in the deep adit, east of Morgan's winze, as far as it has been taken down, has the same promising appearance as when last reported, but in the course of this week we shall take the lode more thoroughly down to the north wall. The caunter lode in the 12 fm. level, east of Morgan's winze, has not been taken down during the past week. The stopes, on an average, are much the same as in my last, yielding about 1 ton of ore per fm. During the past week, on account of the stormy weather, very little has been done at surface; in fact, we had only two dry days for the week.

**GEORGE AND CHARLOTTE.**—The shallow adit level end south, on the cross-course, is not got to within about 3 fms. of the lode as we expect; this level is just as when I last reported, producing small capels and black ore; in the same level, driving east on the lode first cut, the lode is large, and producing good stones of ore; the stopes in the back of this level look pretty well; the lode is large; the winze prior is about 2 ft. wide, and producing fully 3 tons of rich ore per fathom; in the winze under the deep adit we have set a pitch at 11s. in 12 to two men and two boys; this winze is 50 fms. below, and 50 fms. behind the shallow adit end.

**HEIGSTON DOWN CONSOLS.**—The winze sinking below the 45 fm. level is much as last reported. The lode in the 45 fm. level, east of Doldge's winze, is improved, being worth at present 30l. per fm. The 35 fm. level east is without important alteration, as also the cross-cut south and rise in back of said level. Hitchins's shaft, as also the 35 fm. level west, is much as last reported on.

**HENNOCK.**—The shaftmen have finished the plat, and commenced cutting bearers holes for putting in bearers and elstern, and I have to-day set a contract for cutting platform-plat, putting in bearers and elstern, fixing lift, main rods, stays, &c.; also putting in posthouse, hauling up sinking lift, and so complete all in order for sinking at 14l. per job, which I think will be completed in a fortnight. We have cut into the lode 3 ft., and I am happy to inform you that it is showing an exceedingly good improvement from the 10 to the 20 fm. levels. I have to-day (Jan. 7) set 5 ft. more to cut in the lode, at 5l. 5s., and have no doubt we shall have upwards of 30 ft. to get through.

**HERODSFOT.**—In sinking the engine-shaft a great change in the ground and character of the lode has taken place during the past month; the lode is now from 4 to 5 ft. wide, composed of soft friable spar, containing good stones of lead ore, but not rich at present; it is very easy for sinking, and we expect, in another month, to be down sufficiently deep to commence driving, when we shall prove the lode. At Brass's shaft the ground has become much more favourable for sinking, and, from its general appearance there is but little doubt that we are close upon the lode; some small branches of lead have been met with, and should the lode, from the irregularity of its underlie, not make into the shaft, we purpose to cross-cut to it at the end of the month, as there is a fair prospect of its proving productive earlier than we expected. In the 127 fm. level north we have recently cut through the lode, and find it to be 6 ft. wide, 4 ft. of it on the western side being soft spar, and carrying a good branch of lead, worth 10 cwt. per fm.; this would appear to be the same run of ground we have just touched in the engine-shaft, and should it prove so, our prospects will be greatly enhanced. In other parts of the mine there is no particular alteration to notice. The south part continues to look well, and affords every reason to hope that the returns will be fully supported, notwithstanding the discontinuance of operations in the north part of the mine.

**KINGSETT AND BEDFORD.**—I was underground here yesterday—the men have again taken their pitches. We have also set another stopes behind the south end, but being so close to the end driving, we are unable to set it on tribute, as we are obliged to put the lead from the end, and rise at one and the same pile, and convey it to surface. The lode in the present end, driving south, is looking most excellent, and if it continues as at present we shall soon lay open many fathoms of ore ground. Our great object now is to force open this end, and to communicate to the high rise, which is a few feet above the present level. We shall soon be in a position, if the lode continues good, to take away a great deal of lead. The lode in the bottom of the old men's workings, by Luke's shaft, still continues to turn out some good work, although we deem it proper to stop it for the time, in consequence of the surface water being so very expensive to keep; but after our south end is forth to communicate to the rise, then of course our workings will be properly ventilated, but at present the men cannot work to advantage—the levels being full of powder smoke all through. We shall also be able to set our high rise (that has been abandoned for want of air), much cheaper, so as to hole to the old workings, as well as set a pitch in the same, which will be drained of water. Our sample is come back worth 10l. per ton for lead, but shall try another sample. Our floors are full of lead in course of dressing, which I think will turn out well—very man in the mine is breaking lead, more or less. We shall soon know whether she is a paying mine or no, by our two months' samplings; every care and economy is used to make her so.

**KIRKCUDBRIGHTSHIRE.**—At Stewart's shaft, the lode in the 74 end level west is 3 ft. wide, yielding 8 cwt. of lead to the fathom. At Keith's shaft, the lode in the 62 end west is 3 ft. wide, with stones of ore; at Gilpin's shaft, the lode in the 62 end east is 4 ft. wide, with good stones of ore; the lode in the 62 end west is 4 ft. wide, worth 1 ton to the fathom. The lode in the 50 end west is 3 ft. wide, with a kindly spar, but unproductive. The lode in the 40 end west is 5 ft. wide, with good stones of ore. We are expecting a vessel to take a cargo of ores next week.

**LLWYNMALEES.**—The 8 fm. level west continues very promising; the ground is becoming stronger and harder, which is generally the case before meeting with a bunch of ore. In the 14 fm. level west the lode has much improved since last report; in the rise from the 14 fm. level, to meet the western winze, the lode is much the same as last reported; the stopes, from 11 to 20 fathoms, west of the western winze, over the 8 fm. level, have failed since the 27th Dec. The returns in the dressing-floors will be decreased for five or six weeks to come, by which time the western winze and the rise from the 14 fm. level, to meet the western winze, will have been communicated.

**MILL POOL.**—The operations in this mine were commenced on the 1st of April last, since which the adit level has been cleared and secured for upwards of a mile in length. The levels east and west on Lowry's lode have been cleared and secured for 120 fms. in length in the adit level, which is 15 fms. deep; the backs for the greater part of this length were found to be taken by the former workings from the bottom of the lode, and the ground level standing in different parts in the back of the adit, as to induce the adventurers to erect an engine of 30-inch cylinder, which was set to work on the 24th Nov.; since that time the shaft has been cut down from surface to an adequate size, and sunk 10 fms. 5 ft. under adit, at which point the lode has been intersected. The lode in the bottom of the shaft is 3 feet wide, worth 20l. per fm. for tin, with good branches of copper ore on the footwall. The ends east and west are commenced driving, and are now about 4 feet east and west, and we find no falling off the lode in value in either end; the ground is of a very easy character, and from 20s. to 40s. per fathom a good price for driving. We intend to sink a winze immediately from the bottom of the adit level, in order to stop the backs of the lode, and having sufficient stamping force on the mine, we shall be in a position in a very short period to pay all the outlay on the mine, as well as to give a good profit to the adventurers. We are also erecting a line of flat-rods to the great Mill Pool standard lode, which we hope to set to work in about three weeks, and we have every reason to expect similar results on this lode, as on the one already operated upon. We congratulate the adventurers on the possession of what we cannot but call a first-rate concern, and feel no hesitation in stating it as our opinion that no old mine has been opened with such favourable results in the county of Cornwall for the last half century.

**MINERAL COURT.**—We have now cut through the lode in the 40 fm. level below adit, and find it better than our most sanguine expectations led us to hope for; its size is about 6 ft., 3 ft. 6 in. of which is tin worth of good quality; the other part is a fine limy, and contains a great deal of soft white priam and gangy spar, a good price for driving. The lode never presented such an appearance in any of the upper levels, and fully justifies the reports of Capt. Evans and myself, that in every succeeding level we were likely to find the lode improved in value. I am sure our adventurers will be glad to see this statement in your columns, but it cannot prove more satisfactory to them than to myself, to be enabled honestly to say so much of their mine.

**NORTH WHEEL FRIENDSHIP.**—We have just set a rise in the back of the 30 fm. level, west of Butler's shaft, immediately over the place where we found the malleable copper a short time since. In the deep adit level, north towards the copper lode, we have not discovered anything worthy of notice, nor do we expect to until we get near it; this end is now being driven at 4l. per fm. In the 32 fm. level, north of Lean's shaft, we are at present driving by the side of the lode, which is hard; the object in doing this is to get under some lead ground from 10 to 15 fathoms before us. The pitches are looking just as usual. We have about 15 tons of lead ores broken, and which are in course of dressing up.

**PEN-Y-BANK AND ERGLODD UNITED.**—The lode in the adit level, driving west from the cross cut, is at present small, with a little ore, but not to set any value on. We have cleared up the shaft at Pen-y-bank 25 fms., and have been into some of the old workings; we have seen several arches which were left standing by the old men, with good branches of ore in them.

**PENANCE CONSOLS.**—We have made more discoveries on the north lode, and we can now plainly see that we have from 25 to 30 fms. of good tin ground opened, and still a good lode of tin in each end going east and west, and it is going up behind our old workings, all in whole ground, which is likely to hold to the surface. Other parts of the mine never looked so well as they do at the present time, and I think from all appearances that in three months more we shall employ a number of men more than we have now, and all working in good tin ground.

**PRAED CONSOLS.**—Everything here looks most promising. The men are still cutting through the lode, which is at least 16 ft. wide; and I am of opinion that we have got at the side of it, as the ground is altered, and there appears to be a wall; the lode is of first-rate quality.

**SOUTH BALLESWIDEN.**—Since our engine has gone to work we have been as busy as possible, dividing and casing the engine-shaft, and putting in ladders and a penthouse, so as to make everything complete for the men sinking the engine-shaft under the 18 fm. level; we expect in a day or two to be in a position to set the engine-shaft to sink, and the 18 fm. level end to drive west. We have a fine lode of tin, which the men who drove the level over it have offered to work for 5s. in 11, if we feel inclined to set it, but we think the best plan for the mine is to sink our sump, and drive under, so as to work the backs, when it will work for considerably less. On the same lode going east from the engine-shaft we have a pair of men working on tribute; these men are breaking fine rocks of tin. In sinking our fork under the 18 fm. level, east of shaft, we discovered a new lode, 20 in. wide, dipping west, producing the stones of tin, which lode will very well pay the adventurers for working, after our shaft is sunk, and the levels down, so as to have it to work in the backs; we expect, from the present dip of this lode, to have it in the engine-shaft in 3 fms. sinking.

**SOUTH WHEEL TRELANEY.**—We continue to drive south on the branch we cut in the eastern cross-cut with six men; it is about 9 in. wide, composed of killas, flooken, spar, and munda; it is a great deal wetter than I ever saw it before, and also the country. Part is mixed with a large quantity of capels, and the ground is not quite so favourable as last mentioned.

**TREGAR CONSOLS.**—We have cut a large lode in the turnip-field below Trewig Farm-house, 6 ft. large, containing good stones of ore throughout the lode, and a flooken 18 in. wide by the side, as pretty a lode as a mau would wish to see; we are busy sinking on it, and will send you further particulars shortly. The lode is in a white killas, or clay-slate, congenial for ore, and underlies a 1 ft. in a fm., with good walls.

**TRELAWNY.**—The engine-shaft is now down 4 fms. below the 92 fm. level, ground rather hard. The lode in the 92 end level is 2½ ft. wide, worth 10l. per fm.; in the south end in the same level the lode is 2 ft. wide, worth 9l. per fm. The lode in the 82 end level is 3 ft. wide, worth 9l. per fm.; in the winze in the bottom of this level the lode is 2 ft. wide, worth 10l. per fm. In the 72 end level the lode is 4 ft. wide, worth 10l. per fm. At the north mine, Smith's shaft is sunk 3 fms. 1 ft. below the 55 fm. level, ground moderate. In the 55 end level the lode is 2 ft. wide, worth 6l. per fm. In the winze in the bottom of the 40 fm. level, north of the shaft, the lode is 10 in. wide, worth 5l. per fm. We have resumed the driving of the 68, north of Trehan, where the lode is promising. Our stopes are producing much as usual.

**TRELEIGH CONSOLS.**—Christie Lode: In the 100 fathom level, west of Garden's shaft, the lode is 18 in. wide, with stones of ore. In the 90 fm. level, west of ditto, the lode is 18 in. wide



after it gets down into more settled ground. Notwithstanding this, our prospects were never better than at the present moment, and it gives me great satisfaction to have such cheering prospects to report on in the south part of the mine. I would beg to submit that every preparation should be made for sinking as early as possible in the spring; we ought not to be later than the beginning of March.

**WELLINGTON.**—The lode in the 50 fm. level, east of engine-shaft, is 1 ft. wide, principally spar; in the same level west, we are driving north on the shaft ground, favourable for driving, set for the month at 45s. per fm.; should the ground here continue as it is for four or five months, it will be of great importance to the mines. The lode in the 42 fm. level, east of Parcolly shaft, is 18 in. wide, but at present poor. In the same level west, we are driving north, for the purpose of cutting No. 1 lode, which we hope will be the case in five or six weeks from this time. The water will then be drained from the western ore ground, which will give the mines a new feature. The lode in the 10 fm. level, west of the western whim-shaft, is 10 in. wide, and composed of copper ore, lead, and muddle, which we consider as favourable indications. In driving north in the adit level, west of said shaft, we have cut since the last report the engine lode, and at present we are driving west on its course; the lode here is 4 in. wide, having a kindly appearance. The ground in the cross-cut, at any time since it has been driven, and the lode has for the last fortnight been harder than it was in the adit level, to cut Fisher's pearance. The ground in the cross-cut, at any time since it has been driven, and the lode has for the last fortnight been harder than it was in the adit level, to cut Fisher's pearance. The ground in the cross-cut, at any time since it has been driven, and the lode has for the last fortnight been harder than it was in the adit level, to cut Fisher's pearance.

**WEST WHEEL JEWEL.**—In the 70 fm. level, west of Williams' cross-course, on Wheel Jewel lode, the lode is worth 77 per fm., drove last month 1 fm. 2 ft. 6 in. In Carkeek's winze, sinking in the bottom of the above level, on the same lode, the lode is unproductive, sunk last month 1 fm. 5 ft. 6 in. In the 57 fm. level, west of Hodges' cross-course, on Tolcarne tin lode, the lode is worth 57 per fathom, drove last month 1 fm. 3 ft. 6 in.; in the 57 fm. level, east, on the same lode, the lode is producing stones of tin, drove last month 1 fm. 4 ft. In the shallow adit level, west of Tregoning's shaft, on the same lode, the lode is worth 74 per fm., drove last month 1 fm. 1 ft. In the 49 fm. level, west of Quarry shaft, on the same lode, the lode is 2 ft. wide, producing stones of tin, drove last month 2 fms. Quarry shaft, sinking below the 42 fm. level, sunk last month 5 ft. The 40 fm. level, driving south of Provis winze, on Williams' cross-course, to cut the eastern part of Wheel Jewel lode, drove last month 1 fm. 1 ft.; ditto, driving north, to hole to the rise from the back of the 47 fm. level, drove last month 2 fms. 3 ft.; ditto, driving south in the 30, on Williams' cross-course, to hole to Pryor's winze, drove last month 2 fms.; ditto, south from Wheel Jewel lode, in the adit level, on Williams' cross-course, to cut the south lode, drove last month 4 fms. 2 ft. 6 in. The steps in the back of the 12 fm. level, west of Pryor's winze, on Tolcarne tin lode, are worth 107 per fm. The steps in the bottom of the 13 fm. level, east of Tregoning's shaft, on the same lode, are worth 27 per fm. The steps in the bottom of the above level, west of Tregoning's winze, on the same lode, are worth 207 per fm. The steps are working on tribute.

**WEST WHEEL VIRGIN.**—We are still sinking the engine-shaft by nine men; we are now 7 fms. under the 9 ft. level, and I have much pleasure in saying that the lode never looked kinder than it does now. The last 3 fms. we sunk we sold about 207, worth of tin, which is paid for. We shall sink 4 fms. deeper, and drive to the 19 fm. level, and then we shall have 6 ft. for the work, and we shall be able to put more men to work, and break more tin on this one lode, besides which we have five master tin lodes in the set, from which thousands of pounds worth of tin have been raised.

**WHEEL ADAMS.**—The 72 fm. level has been extended several feet south on the eastern part of the lode, since I wrote my last report, at which point the ground is also becoming hard and wet. We are now cutting through the lode as fast as possible, in order to reach the western wall, where, if the ground is more favourable for driving, we purpose extending a level under it; we have cut through the lode about 9 ft.; it consists mostly of hornstone and quartz, with good stones of lead; we have 3 fms. more to drive to get under the body of ore gone down in the level above. The quantity of water issuing keeps the engine working 10 strokes to a minute, and the water is not much lessened in the 60, it is quite evident that the boundary, continues poor, but the next 6 ft. will, no doubt, be found as productive as it was before we met with the bar of poor ground; we have extended a cross-cut west about 4 fms. north of the boundary, and have intersected both the middle and western lodes; the former will produce saving work, but the latter is poor. In the 50 south we have done nothing since we cut the elvan; the 50 north is nearly completed. In the 40 north, on the western silver-lead lode, we have been clearing stuff and timbering ground. The 40 and 28 fms. levels are being driven by the side of the lode over the flooken, and the ground is good; we shall cross-cut the lode in both places in the course of next week. The old tribute pitches are poor. The rise in the 28 is in a large lode, containing barites, with good work for lead. The steps between the 28 and 40 have resumed working, and are producing about 10 cwt. of lead per fm.

**WHEEL ARTHUR.**—We have a heavy job in cutting through the great cross-course, but all is looking well. I hope to complete, securing it in a few days, when we can form an estimate as to our future workings. I will write you immediately after getting through.

**WHEEL CREBOR.**—It is with great pleasure I have to report to you that the lode in the western part of the mine are improving very satisfactorily. The lode in the 30 and west of Gubbins' rise, is upwards of 2 ft. wide, ore throughout, strong and well-defined. The lode in the winze sinking below the 40, west of Rundle shaft, is about 2 ft. wide, of a very promising character; the lode in the pitch in the 40 is looking well; the 40 and is at present suspended for want of ventilation; the lode is of a promising appearance. In the 40 adit, west of Rundle shaft, we have unexpectedly met with a large strong cross-course, having driven 4 feet, but no signs at present of being through it; this cross-course was never seen by the former company; the lodes in the ends are looking well driving towards it, and having such an extensive piece of new ground before us to the west, I think we may reasonably expect a great change for the better. The other parts of the mine are just as last reported.

**WHEEL FRANCO.**—Since the last committee meeting on the mine, we have driven about 5 fms. in the 62 fm. level, east of the engine-shaft—the lode for this distance has been of a very promising character, being large, and producing large stones of ore; the lode at present, in the end, is large, composed principally of ore, with spots of muddle. In driving the 32 fm. level, east of the engine-shaft, the lode has been intersected by a cross-course, which has shifted the lode to the south, a right hand heave, as seen by the plan; we have driven 5 fms. on its course, and have met with the point of the lode on the east side of the said cross-course; ore is seen in the point of the lode, but much cannot be said about it at present, as we are not forth where the lode takes its regular direction from the cross-course; we have a pretty good lode home against the western side of the cross-course, and I have no doubt but what we shall meet with the lode equally productive on the east side, when it is clear of the influence of the cross-course. In driving the 10 fm. level, east of Burrows' shaft, the lode is about 5 fms. on the cross-course, which was composed of muddle and gossan, when it was cut off by a cross-course, which is, in all probability, the same as the one seen in the 32 fm. level, it having shifted the lode in the same direction. We have here also driven south 5 fms. on the cross-course, and have just intersected the point of the lode on the east side. I hope in two or three weeks we shall be able to say something about the lode in this level, the ground being much softer than the ground in the 32 fm. level below. The engine-shaft is down 11 fms. 2 feet below the 62 fm. level; I expect in a fortnight from this time to have the shaft cast down and made complete to the 74 fathom level, when we shall immediately commence a cross-cut to intersect the lode. The deep lobby is extended 8 fms. east of the engine-shaft, leaving about 45 fms. more to drive to complete it home to the wheel-pit—ground much as usual. The pitches are much the same as they have been for several months past. Our next sampling will be at Lowwell, having commenced drawing ore to that quay on Monday last.

**WHEEL GOLDEN CONSOLS.**—At Thomas's shaft, in the 70 fathom level north, the ground is good; the lode is 10 in. wide, producing 4 cwt. of ore per fathom. I think this level is extended to high-water mark; in this case we are keeping the ore separate. In the 77 fm. level north the ground is good; the lode is 1 ft. wide, producing 5 cwt. of ore per fathom. I expect a great improvement in this level as soon as we have sunk a winze under the 70 fm. level, about 6 fms. deep; this winze is now about 7 fms. below the level, in sinking the same lode has produced 15 cwt. of ore per fathom. In the 77 fm. level south the ground is good; the lode is 2 ft. wide, producing 13 cwt. of ore per fathom, about this very shortly. At the engine-shaft in the 70 fm. level, south of the cross-cut, the ground is improved; the lode is 15 in. wide, producing 3 cwt. of ore per fm. At Webb's shaft, in the 60 fathom level south, the ground is hard; the lode is 3 ft. wide, producing 12 cwt. of ore. The steps are producing a little ore. The tribute pitches we have at work are poor. The summer are cutting pit and putting in penthouse, in order to commence sinking Thomas's shaft under the 77 fm. level. I expect we shall begin to sink in the early part of next week. We have had such rough weather here for the last week that little has been done to the dressing department. No vessel has yet arrived with the timber.

**WHEEL HAMLYN.**—I like the appearance of the canter lode better than ever. We have now branches crossing the C lode, and leading into the great east and west one; these are impregnated with beautiful yellow ore, and no doubt will be feeders.

**WHEEL MARY ANN.**—The lode in the 70 fm. level, north of Pollard's shaft, is 24 ft. wide, and worth 87 per fm.; in the same level south it is 3 ft. wide, and worth 87 per fm. The lode in the 60 fm. level, south of the shaft, is 24 ft. wide, and worth 127 per fm.; the lode in the winze sinking under this level south is 24 ft. wide, and worth 137 per fm. The lode in the 50 fm. level, south of the shaft, is 24 ft. wide, and worth 87 per fm.; the lode in the winze sinking under this level south is 2 ft. wide, and worth 87 per fm. The lode in the 40 fm. level, south of the shaft, is 24 ft. wide, and worth 87 per fm. The lode in the winze sinking under this level south is 2 ft. wide, and worth 87 per fm. The lode in the 30 fm. level, south of the shaft, is 24 ft. wide, and worth 87 per fm. The lode in the winze sinking under this level south is 2 ft. wide, and worth 87 per fm. The lode in the 20 fm. level, south of the shaft, is 24 ft. wide, and worth 87 per fm. The lode in the winze sinking under this level south is 2 ft. wide, and worth 87 per fm. The lode in the 10 fm. level, south of the shaft, is 24 ft. wide, and worth 87 per fm. The lode in the winze sinking under this level south is 2 ft. wide, and worth 87 per fm. The lode in the 0 fm. level, south of the shaft, is 24 ft. wide, and worth 87 per fm. The lode in the winze sinking under this level south is 2 ft. wide, and worth 87 per fm.

**WHEEL PENHALE.**—Since my last notice of this mine I ascertain no important alteration in the north end, 40 fm. level, the lode and ground continuing much the same. In the south end, 40 fm. level, the lode shows a much better appearance than when we were driving through the elvan; this end is now about 12 fathoms behind the canter lode, and in all probability will, at the intersection, be found a very valuable end, and lay open almost a new mine. The lode in the winze on the canter still continues to show well. I find no particular change in the tribute department.

**WHEEL PROVIDENCE.**—The lode in the adit east is still looking very promising, and it is also improving both in size and quality. The air-pumps are now up to take the water from the bob and adit; and, if the weather proves favourable, the house will be up and covered in a fortnight.

**WHEEL RUSSELL.**—The cross-cut in the 48 fm. level south, towards the great lode, is about 7 ft. wide, and we have just passed through a very rich branch of yellow ore; I think the appearance of this cross-cut strongly indicates a bunch of ore when we meet with the lode. In the 37 fm. level east we are now passing through a slide which has cut off the lode; we had a good bunch of ore against it, and expect to meet with it good on the other side; we have just touched two branches of very rich ore, 3 or 4 ft. wide each, the main part being still to the south; the lode in the winze is fully as large as it has been, but it is not turning out so much ore at present as it has done. We have cut into the lode in the 37 cross-cut north on the cross-course for about 2 feet, but think there is still more lode to the north; the part of the lode already seen is not rich, but may be called an ore lode. In the 36 fm. level, west of the lode at present is not so large as it has been, and there is a small leader of ore. We have not yet met with any lode or branch in the cross-cut north in the 16 fm. level. The pitch in the back of the 37 continues to look very well, and the other two pitches are much the same as they have been for some time past.

**WHEEL SARAH.**—We are still driving on the south part of the great east and west lode, which is improved since last week; we have now spots of malleable and black ore all over the end.

**WHEEL TOM.**—We are proceeding with great spirit. We are bringing up our lobby, and expect to cut a large lode in a few days, from which there is issuing a

large quantity of water. Our main tin lode in the centre of the set we have succeeded in tracing for 300 fathoms east, nearly to the bottom of the valley, and in each pit in which we have opened our lode we have found a fine blue capel, peach, and good stones of tin, saving work, and fit for the stamps. We shall commence driving our adit on the course of the lode directly, and on a drive of 140 fms., we shall have 60 fms. of backs, good stopping lode; it is impossible to see a better lode at surface; it underlies north 18 in., and is 4 feet wide, carrying good, regular, and well-defined walls. We have the walls of our smith's shop up, and are busy getting the roof on. Our sawyers are cutting the timber for our wheel, and our materials purchased at Wheel Anderson sale are nearly all on the mine. We shall commence next week sinking on our copper lode at the north-western extremity of our set; we opened it some time since; it was 4 ft. big, underlies south; the lode was composed of gossan, quartz, felspar, muddle, and spots of ore, as kindly as I should wish to see a lode at this depth. Our adit is driven 20 fms. to hill on the course of the lode, where it carries the same features as in the shaft. Our neighbour, Great Wheel Sheba, is doing well on a parallel lode, about 300 fathoms to the north of our set, and they are raising large stones of ore, 300 lbs. in a stone, on a most promising lode; they will not find we are far behind them, are long.

**WHEEL TRESCOLL.**—We are now down in the flat-rod shaft 4 fms. 1 ft. below the 20 fm. level, ground very good for sinking, and getting softer as we go down, lode improving, but not rich at present. The east end is driving by six men, at 27. 10s. per fm., lode large, and saving work. We have stopped sinking the winze on the D lode for the time, as we have water in it, and have put the men to stop and drive on the lode. This is a very promising lode, and good for tin, and improving as we are sinking. I am waiting orders to resume the driving of the south cross-cut. This is a point that should be forced as fast as possible, as it is very near the D lode, which we expect to be a very good one when cut.

**WHEEL VINCENT.**—The lode in the west end is 4 ft. wide, not quite so rich in the back as it was last week; but still remains a good lode in the bottom, where there is a large stream of water pouring up. We are also about 12 ft. below the 10 fm. level with our new engine-shaft; but since the last report the ground is a little harder. Our stamps are regularly at work; and we are thinking to return our tin about the end of this month. One of our adventurers has been here and inspected the mine, and is highly pleased to find our prospects so good—taking back to town three of the best specimens of tin that England can produce, and which may be seen at Mr. Croft's office.

## FOREIGN MINES.

**LINARES MINES.**—The following has been received from Mr. H. Thomas: Linares, Dec. 28.—The Christmas holidays having occurred since my last report, the progress made during the past week has been small, and no material change has taken place in the appearance of the various operations. In the 55 fm. level, driving west of San Antonio winze, we have a good branch of lead, worth about 2 tons in a fm., and west of the winze the lode contains occasional lumps of lead. Each of these ends is extending from this winze 10 ft., we are of opinion, on the south lode, leaving what we hope we shall find the last standing on the north, as was the case in the back of the 45. Wilson's shaft has been sunk 1 fm. 10 in. for Dec.; the appearance of the lode is very favourable, and worth 4 tons per fm. The tribute pitch east of La Manca having run out today, we have delayed setting it again till the men have got their ore to the surface, the quantity broken being so considerable that we hesitate fixing the price of a new bargain till we can form a better judgement by inspection of the quantity broken. In other respects, I have at present no change to report in the prices of the tribute pitches, which, as you were advised, mostly were set for two months, or to the end of Jan. I have set the walls of the house for the reverberating furnaces to build at 5200 rs. (524); the roof, chimney, and furnaces, will form a separate agreement. On Monday, the masons begin this, to us, most important work.

Stock account: Ore in stock at Linares, Dec. 21, 178 tons; weighed in, December 28, 13 tons 9 cwt.; remaining at Baylen, 11 tons 4 cwt.; ditto at Seville, 69 tons 17 cwt.; at Malaga, 59 tons; on board ship, 126 tons 10 cwt.: total 458 tons.

## ROYAL SANTIAGO MINING COMPANY.

The half-yearly meeting of shareholders was held at the offices, Broad-street-buildings, on Wednesday, the 8th inst.

The Baron DE GOLDSMID in the chair. After the minutes of the former meeting had been confirmed, the SECRETARY read the following report of the directors:—

The directors had the pleasure to report to the proprietors at the last meeting, that a discovery had been made of a large lode in the Perseverancia (a newly-acquired pertenencia), which yielded 12 to 14 tons of ore per fathom, and from the promising indications, the manager expected there would be an immediate abundance of ore. On opening the lode several fathoms east and west of the cross-cut where the discovery was made, slides were encountered which greatly altered these expectations. The workings have been interruptedly carried on with the utmost vigour, laying open the ground in length and in depth; and, notwithstanding the broken character of the lode by the slides, the quantity of ore which has been extracted during the first six months' operations has not been more than 300 tons short of the estimate which was made soon after the discovery. The workings in progress show the veins are becoming less disordered, and more uniformly ore in depth. A commencement was made, in March, to extract the ores from this mine, and in the half-year ending 31st August, which forms the semi-annual account submitted at this period to the proprietors, 900 tons have been obtained, and 21 tons of precipitate. Of this quantity, 225 tons arrived in the *Sunbeam*, and were sold at the ticketings, producing net 20111. 13s., and the 21 tons precipitate netted 7837. 7s. 5d. The remaining 674 tons are in Swansea, and will be sold in this month; samples of 426 tons of this quantity have been assayed, and the dust ore produces of only 7½ to 8 per cent., but the stone of 2½ per cent. The remaining 248 tons appear to be of the same quality, but are not yet assayed. These ores, as usual, taken into the half-yearly account at their estimated value, and will produce, after deducting freight, insurance, and sale charges, a net proceeds of 30967. 18s. 6d., with the interest accrued on money lent on security, make an aggregate of receipts of 59662. 18s. 10d. The monthly accounts on the table exhibit the expenditure for the same period, an abstract of which is annexed, amounting to 91044. 15s. 3d., which includes a considerable sum expended for timber and other materials required for the new mines, but it must be observed that a part of these materials will be used in future half-years, and for which credit has not been taken in this account. The proprietors will share with the directors in their disappointment at the extraordinary low produce of the ore, especially the dust ore; and they had no intimation from the manager earlier than his letter of the 14th October, received on the 20th November, that these ores, which were then shipping, would be the average produce. He attributes the poorness of the dust ore to the abundance of muddle in it, which could not be extracted by cleaning without losing largely of the finest copper. He is of opinion, however, from present appearances, that the character of the ore will be changed for the better, when the mine is opened more in depth. Had the quality of the ore been equal to that obtained from the company's late mine, St. George, the expenditure would have been covered, even by the late reduced rate of raisings, and thereby avoided much disappointment. In September and October, 369 tons have been extracted; and from the more settled character of the veins there is the prospect, with an improved quality of the ore, of the mine yielding a profit, which is not only opened more in depth and in length; at the same time, all who are conversant with mining operations know the uncertainty of their results.

The CHAIRMAN said, they would perceive that a loss had taken place that half-year of 31177. 16s. 4d. Of course, they would draw a natural conclusion that the directors extremely regretted to find there was such a loss, instead of a profit. They had taken the opinion of that mentor of the board, Mr. Taylor, and he did not see how they could have a better one on the subject. By the postscript in the last accounts, they would see that the deeper they went the better the prospects appeared. At 20 or 30 fms. deeper, they might expect that the lode would afford a more satisfactory result than hitherto. He felt confident that the shareholders would not impute any blame to the directors for this result, nor if they anticipated a better one the next half-year. They would recollect that he called their attention on a former occasion to the term "mining" as another word for uncertainty. Their prospects for the next six months were better, certainly; but still they might be deceiving. The quantity of produce was about 300 tons short of what they expected, which was nothing that they ought to complain of, except that the quantity sent home was not of sufficient goodness for the purpose, and ought not to have been sent to this country, which was the opinion he expected of Mr. Taylor.—Mr. TAYLOR said, a portion of it only.

The CHAIRMAN said, the first accounts showed that this rich vein at Perseverancia promised 13 or 14 tons per fathom. They looked for 40 or 50 per cent., but a large quantity of that brought home hardly exceeded 21 per cent.; and a small portion of it was of a much lower per centage, and had much better been left at Cuba. However, they had seen quite enough to induce them to persevere in a trial of this vein, which, in some places, promised extraordinary richness. Had they such a lode in Cornwall, they might have worked it at a considerable profit; for allowing only 5 or 6 tons per fm. in Cuba to be nothing, it would, notwithstanding, form a very rich mine in Cornwall, the expense attending foreign mining being so considerable. He (the chairman) ended by saying that he hoped to show them a better result in the next half-year; and would now propose that the report just read be received and entered on the minutes.—Mr. AID. THOMPSON seconded the motion.

Mr. TAYLOR said, the baron had alluded to the postscript in Capt. Hoskins's letter, but he objected to postscripts, and would rather have seen that statement in the body of the letter. He seemed by that to have the greatest possible expectations going on in the company's possessions in Cuba. In the other pertenencias they depended upon the workings of the Cobre Company in the immediate neighbourhood; and as they might yet turn out of great value, they did not think it prudent at present to part with them. There was every inducement for them to persevere with this new vein, and he had no doubt they would have a better result next time.

Mr. BIRDSEY thought the indications were very promising. The CHAIRMAN observed, that all the accounts were open to the shareholders, and the directors told them all that was known to themselves. (Hear, hear.) The report was then adopted.

Dr. SNOW was like the rest, for he came there in the expectation of hearing more favourable accounts. He thought the feeling was that, notwithstanding this disappointment, the directors had done, and were still doing, everything they could for the benefit of the proprietors. Under that impression, he should move a vote of thanks to the chairman and directors of the company.

Mr. T. WILSON seconded the motion, and, at the same time, asked if the Cobre Company were working with any success.—Mr. TAYLOR said, they were working with the greatest possible success. These pertenencias were of the character of a backgammon board, of which some of the squares were held by this company, and some by the Cobre Company. As the Cobre Company were making immense profit, there was a probability that some of the veins might extend onward to the districts of this company.

Mr. BIRDSEY asked how many fathoms distant the Cobre Company were? Mr. TAYLOR said that St. Andrew Mine was only a moderate number of fathoms distant. If they worked into the ground of the Santiago Company they would be liable to heavy penalties. He thought there was no fear of that, and

that from the feeling now existing between the two companies, the Cobre Company would think it their duty to let them know of such an occurrence.

After some observations from Mr. Lee and others, the CHAIRMAN said that the directors had taken care to have enough materials on the spot, to be prepared, in case of any good luck turning up, to commence at once any new operations, but then they must be justified by some more certain indications. The vote of thanks was then passed to the directors unanimously, and the meeting separated.

## HOLMBUSH MINING COMPANY.

A special general meeting of shareholders was held at the offices of the company, George-yard, Lombard-street, on Wednesday, the 8th inst., for the purpose of taking into consideration a report from Capt. W. Lean, as to future and more extensive operations, and, he being present, to hear from him more particularly what he proposed to be carried out.

W. CHIPPENDALE, Esq., in the chair. The notice convening the meeting having been read, the following elaborate report, from Captain William Lean, was submitted, containing a full account of the present workings, as also his views respecting the future operations of the mine:—

Jan. 6.—I beg to inform you that it gives us such a degree of pleasure to hand you the following report of the above mine that we could not previously enjoy; although, whilst in the depths of poverty, we were not at all discouraged, but persevered, and we hope we have passed beyond the cloud. We were at all times of opinion that those lodes (particulars of which will be given hereafter), when fully developed, could not fail in proving productive and dividend-paying ones, which our former reports will bear testimony thereto, as well as the present (particulars of which you will find as follows), commencing with the lead lode, viz.:—

**Lead Lode.**—The 120 fm. level has been extended about 120 fms. south from the main copper lode; it varies in size from 2 ft. to 3 fms. wide, dipping west, 3 ft. in a fathom, and is composed of soft and hard quartz, white prill, and lead; the latter is sometimes found in a regular branch on the foot-wall—at other times it is disseminated throughout, and in many places large deposits of this mineral have been found, and we may truly call it an extraordinary lode, when we bear in mind the large masses that have been raised from it—one of which is now on the mine, and its calculated weight is 12 cwt., all but solid lead, rich for silver. This stone will be sent to the Exhibition of 1851. Nearly all the ground above this level has been taken away; in doing so we had proof positive that the deeper we went the more productive the lode was found, both for lead and silver; the lode in the bottom of this level will be taken away at a very low tribute, when made available by its intersection at the 132 fm. level, west, on the main copper lode, and properly drained of its water; and as this level has been the most productive one we have had, we have good reason to hope for a better one still at the 132 fm. level, and which we believe we shall have.

**Flap-Jack Lode.**—The 100 fm. level, east of the great cross-course, is extended 88 fms., through a lode that will average 3½ ft. wide, the productiveness of which varies from 1 to 7 tons of copper ores per fm., and when fully developed it will give a very good profit; it is also cheering to observe, the further east we go the better we find the lode; the present end will produce 6 tons of ore per fm.; between the cross-course and the end, a winze is in course of sinking 8 ft. below the level, where the lode is 5 ft. wide, producing all of 7 tons per fm. With this exception, the bottom of the level is in whole ground. The lode in the back of the level (between the above-mentioned end and winze) has been, and still is, a very productive piece of ground, and when a communication is effected to the 120 fm. level, which we expect to see accomplished shortly, and should the place continue productive, large returns will be made from this lode, even at this level, and still larger at every deeper level; we hope, and judging from its general appearance in all of the upper levels, I think we are justified in expecting still greater things at every succeeding level below the 100. In the 100 fm. level, west of Wall's engine-shaft, the lode is disordered, and there is a great deal of water issuing from the south side of the level, we think the main part of the lode is still further south; and in order to ascertain it, we have commenced driving a cross-cut in that direction for entire satisfaction—for it is far better to exceed than to stop short of the object. The 120 fm. level has not been extended so far east of the great cross-course as to come under the course of ore in the winze below the 100 by several fathoms; but we do not doubt, a great lode will be met with when it is driven thus far; the lode in the present end never looked so promising, since its commencement from the cross-course, as at present—it is 15 in. wide, composed of beautiful spar, muddle, and stones of yellow copper ore of good quality, and we are strong in faith that a good course of ore will be met with a little further east, and that this level will exceed the other (100), and, as we have before intimated, that this lode will be found more productive in depth than it is at the present levels, if we may regard our opinion on the nature and composition of the lode in the 20, 40, and 70 fm. levels, which is a very strong champion lode, the principal part of which is muddle, impregnated with rich yellow copper ore. As we have invariably found the deeper the muddle, or gossan, the deeper the copper, there remains nothing for us but to push on with all speed, and intersect it at deeper levels. If you return to our report of the 23rd Dec., alluding to what was made about sinking Wall's engine-shaft, at some future day, 20 fms. deeper; and after mature deliberation, we think the time has arrived for preparing to carry the same into execution. We must confess the ground to commence with is very hard, but the shaft having been sunk 15 fms. through the ironstone, we hope and believe the worst part of it is got through, and that it will be found more moderate as we proceed with it. But, apart from the above consideration, if this lode is to be fully developed (or laid open), the shaft must be sunk, for it is in the best possible position for the flap-jack lode, and the prospects of the lode alone, independent of the main and north lodes, would warrant the necessary outlay for its full development, seeing it is dipping towards it, and the other lodes moderately from it; besides, we have only one shaft at present to draw all the stuff through to surface, and we now almost find it necessary for a second. We would, therefore, strongly recommend it to be sunk 20 fms. deeper, 10 of which can be sunk without setting the engine to work; and after we get to the 120 cross-cut south to intersect the flap-jack lode, and north to intersect the main and north lodes, and afterwards push on the levels into the granite hill, and to prove these lodes in the primitive rock, which would be very interesting, as neither lode in this or the adjoining mine has been extended so far, in order to prove the effect, or to see what change there would be in the appearance and worth of the lodes.

**Main Lode.**—The 132 fathom level is extended about 30 fathoms west from the great cross-course, through a course of copper ore that will average 2 feet wide, and produce 4 tons per fm., worth 97 per ton, judging from a parcel sold on the 19th Dec. from the same level, which brought 97. 2s. (carriage included). We calculate from the underlie of the lead lode, in connection with the cross-course, that we have about 17 fms. further to drive from the present end to the lead lode. The lode in the present end will produce 4 tons per fm. and we think it will hold good to the lead lode; if so, there are strong grounds to hope that it will master the latter, and be found very productive to the west of it, which was not the case in the upper levels to any great extent, because the branches of ore we had were very partial ones indeed, when compared to the present one in the 132 fathom level; if it continues so productive to the lead course, we shall have about 50 fms. (say, for round numbers) of such a lode, without any interruption, by splits, slides, horres, or dead ground, a circumstance rarely met with. If there is any difference in the lode, the best is in the bottom of the level, where it will remain unwrought until drained by a cross-cut, penetrating through it at a deeper level—say 15 fms. below the 132 fm. level. Before cross-cutting, it will save a good part of the expense by adopting the plan of fixing 15 fm. levels instead of 10 fm. levels, where the cross-cuts are long. About 14 fms. copper have been stopped away from the back of the 132 fm. level, in the cross-cut with the cross-course, at which place the lode will yield 4 tons of copper ore per fm.; we may say it never looked better. Another circumstance worthy of remark is, that the great cross-course at this level is nearly perpendicular, and the lead lode dips west 3 ft. in a fathom, which will give a greater or increased length on the course of ore at every succeeding level; for there is not the slightest doubt on our minds but that the lode will be found equally productive at the next level as it is at this, if not more so.

**Hilchen's Engine-shaft.**—This shaft is sunk from 4 to 5 fms. below the 120 fm. level; the ground in it at present is not so favourable as it was, but we believe it will improve as we approach the 132 fm. level, at which point the cross-cut is extended to within 3 fms. of the shaft, where the stratum is much more favourable; we shall endeavour to reach the centre of it as quick as possible, to hole, cut trip pit, and be all in readiness for sinking another lift below this level by next Midsummer: when this is completed we shall be able to dispense with the services of 12 winze men, who are now employed, and must be, until the shaft is holed to the 132 fm. level, to draw up all the stuff to the 120 fm. level; so you will perceive we cannot do what we wish, or might, until a communication is made. Immediately afterwards we shall commence sinking to the 147 fm. level (if you approve of it), with all possible dispatch, knowing the importance of such work, as will appear from the following:—that if this lode was intersected in the 127 fm. level we could commence giving dividends at once, but we cannot warrant you such until that time, if the mine is fairly wrought, which, in our opinion, it should be. We are fully sensible of the persevering spirit you have manifested, and the loss you have sustained so far, to prove the mine fully; nevertheless, we should be doing wrong to hold out false hopes, by promising dividends before we are in a position to give and continue them. The exact time of commencing we cannot state in a positive manner; very much will depend on the nature of the ground to be sunk and driven through to reach the lode in the 147 fm. level; but, judging from present appearances, we calculate it will take a considerable time to accomplish, and after this time is fairly laid open, the 132 fm. level lode continue to open so productively, together with the lead lode. Having these two lodes to operate on, we hesitate not to say, that if you are willing to exercise a little longer patience for us to develop the lodes more fully, and to cut the lode in the 147, we will give you back the money you have laid out, with fair interest on the same.

The report having been received and adopted, it was resolved—That the thanks of this meeting be fairly due to Capt. Lean, for his services in the management and carrying on the operations of the mine; also, that the directors are justly entitled to the particular thanks of the shareholders, for their continued and especial services in conducting the affairs of the company.

Capt. Lean stated to the meeting, that from the different levels laid open ore had been discovered to the value of 30,000l., and is only required facilities to make such ores available. A call of 1l. per share was made to carry out such object.

## PETER TAVY AND MARY TAVY CONSOLS MINING COMPANY.

At a meeting of adventurers, held at the offices, Railway-place, Fenchurch-street, on Thursday last.—HENRY GIBSON, Esq., in the chair.—The balance-sheet was presented, showing—Cost of working the mine since last meeting, 1421. 12s. 8d., leaving balance in hand in favour of adventurers, 5297. 16s. 5d. It was proposed by G. D. HEATLEY, Esq., and seconded by C. BRYSON, Esq., that the same be passed.

The following report of the committee of management was then read:—

Your committee, at the last general meeting, had to inform you that they had applied to the several lords of the soil for an extension of your leases (which, under the then tenure, would have expired in 1858), and they are now happy to add that their exertions to effect this purpose have been crowned with success. Two of your committee visited the mine on this business since they last had the pleasure of meeting you, and have not only procured an extension of your leases to 21 years, but have prevailed on the proprietors to reduce the royalty from 1-12th of 1-15th dues. Such a great and important concession, however, has not been accomplished without some little expense, and it has been found necessary to pay Mr. Redcliffe 1000l. for an extension of lease to 21 years, on 1-15th dues, and to the Messrs. Cole a similar sum, with an understanding in reference to the latter parties that another shaft shall be commenced on their lands in the approaching spring; but, as this portion of your set is immediately contiguous to the most profitable workings of the Great Wheel Friendship, much and permanent advantage is contemplated by this arrangement, although, of course, accompanied with considerable expenditure. From these circumstances, your balance will be reduced to 5297. 16s. 5d. the last two months, from 6732. 9s. 1d., to 5297. 16s. 5d., out of which 200l. is proposed



to be paid to the Messrs. Redcliffe and Cole's. In conclusion, your committee have only to refer you to your captain's report, which states that he hopes to reach better ground in the bottom of the mine, which is but a few fathoms deeper.

The following is the report from Capt. John Lean:

Having just returned from the mine, I beg to say that the shaft is sloped down 4 fms. 4 ft. below the 32 fathom level—the ground is without alteration; the level varies from 12 to 18 in. wide; it is composed of mud, sand, spar, and good stones of ore. In consequence of the inclination being westward with the cross-course, the slopes now from the eastern end of the shaft are 18 ft. in length. I purpose as soon as the shaft is down 5 fathoms, which will complete the summen's present bargain, to sink the shaft, independent of the winze, consequently we shall have an arch of ground between the shaft and winze. I hope we shall soon meet with more favourable ground in sinking, as I am informed that the ground in the bottom of the winze is quite of a different character.

The CHAIRMAN then said—I have now, gentlemen, the pleasure of congratulating you on your present prospects, and must remind you that there was a covenant in the old leases of the Messrs. Cole's, that 1000 should be paid down prior to any ground being laid open, but they nobly consented, a short time back, to allow Capt. Lean to costean over their land, when four men were engaged for a week, and laid open a very promising lode from 3 to 4 ft. wide, with very rich gossan some 2 fms. from surface, when it was deemed advisable to fill up the same, having proved this lode running through their land, and being the master lode of our fortunate neighbours, Wheel Friendship, who are now sending up the best ore from the 40 to the 50 fm. level at Brenton's shaft, the same being within 60 fms. of Cole's land, now our boundary, and also other lodes in their land. When you consider these facts, and that the same was only held for eight years, and at 1-12th dues, it was not to be wondered at, but these gentlemen should require more than what their father had covenanted for some 18 years ago, especially as the committee wished a reduction in the dues; but, owing to their untired exertions, I am happy to say the same has been accomplished, and a shaft will be sunk immediately the spring sets in, when our captain reports the weather favourable, in Cole's land, west of the River Tavy, and adjoining Wheel Friendship. Our engineer, Mr. Rowe, has made his survey, and it gives me great pleasure to inform you that the same can be accomplished by connecting rods from our present wheel, so that you will require scarcely any new machinery, and be proving the ground in two separate shafts. In reference to the 1000, Mr. Redcliffe, we had not covenanted to pay anything; but, in consequence of the same being held for a few years, and our water-lift, shaft, and machinery being on his land, it was deemed advisable, by his consenting to reduce the dues, and grant a new lease for 21 years, to close with him. After explaining these matters, and again repeating that the committee have been unsuccessing in their labours on behalf of the adventurers, I will conclude by saying that our future prospects are very encouraging. I would now call your attention to Rule 3 in your bye-laws, and wish you to take into consideration the same, as it appears to the committee that the same could be amended, to prevent giving unnecessary trouble to the adventurers, and for the purpose of carrying out the workings with that spirit the present undertaking warrants.

The Chairman also read a letter from Mr. Willisford, when it was proposed by G. D. HEATLEY, Esq., and seconded by W. E. BELL, Esq., that the report as read be received and adopted.

A special general meeting was then agreed on, to take place on Tuesday, the 28th inst., to consider the amendment in the rule referred to, when a vote of thanks was given to Henry Gison, Esq., their chairman, and also the committee, for their great exertions and attention on behalf of the adventurers, in bringing the mine to its present prosperous condition, when the meeting separated, greatly pleased with what had already been done.

#### CRAIG-Y-MWYN LEAD MINING COMPANY.

A general meeting of proprietors was held at Liverpool, on Friday the 3d inst.—R. N. BROUGHTON, Esq., in the chair,—when the report of operations on the mine during the last three months was read to the meeting by the secretary, and the accounts produced, which showed—Produce of ore sold in December, 3047 8s.—Mine cost for Oct., Nov., and Dec., 2551 18s. 8d.: leaving balance in favour of mine, 487 9s. 4d.

The report recommended the immediate erection of a water-wheel of 20 ft. diameter and 3 ft. breast, to work a new set of crushers (the old ones being found inadequate to the work), and likewise suitable dressing-floors, store-house, and offices, which were adopted by the meeting, and ordered to be proceeded with. The adoption to the several levels of an hydraulic air-lift apparatus having proved entirely successful, the works have since proceeded without interruption,—6 men on tribute, and about 20 men driving to come under the lodes at a further depth of 30 fms. On the north cross driving the man had just cut into good ore ground, from which some highly satisfactory specimens were produced at the meeting, giving promise of a rich deposit at hand.

To meet the outlay that will be incurred by the erection of the water-wheel, &c., a call of 5s. per share was made, to be paid on or before the 3d February. The report was highly satisfactory, and the meeting broke up, well pleased with the promise of a good and lasting mine.

#### YEOLAND CONSOLS MINING COMPANY.

A meeting of parties interested in these sets (formerly Plymouth Wheel Yeoland, and Plymouth Wheel Yeoland East) was held at Plymouth, on Wednesday, the 8th inst., when reports were read from the committees and agents; and it was unanimously decided to proceed with the intended workings vigorously, and above 1000 shares were then taken. It being obvious that a reduction must be made in the dues, a committee was appointed to confer with the landowners thereon. The junction will enable the operations to be carried out on a more extended scale; and it is intended to sink a new shaft on the north lode, to the eastward of the present shaft, the present operations being continued; to erect a new engine in a position to pump from both shafts; to form an inclined plane to the 32 fm. level, and annex a drawing machine to the engine; to lay down a tramway from the shafts to the stamps; to enlarge the dressing-floors; to add 36 heads of stamps to the present engine, and 12 to the new one; and to continue the south adit to intersect the new south lode at a distance of about 30 fms.; and it is confidently expected that these mines will then be in a position to return a good profit.—The meeting was also attended by the agents (Capt. J. Lean and J. Eddy); and after hearing various explanations, the meeting was adjourned to the 16th inst., and separated with a determination to carry on these workings with spirit.—The sets are very extensive, nearly a mile on the course of the lodes, and are known to contain several lodes, both tin and copper; and from one alone between 2000 and 30000 worth of tin has been raised from the 20 and 32 fm. levels—the largest of these being 70 fathoms.

#### THE MINING SHARE LIST.

SIR,—In the laudable attempt to classify the list of mines, as published in your last Journal, I fear you have, for practical purposes, attempted too much, by subdividing the mines into so many as 12 divisions. Having hourly to consult your lists, I am at a loss now, unless I know beforehand the local of the mine, where to search for it; and how much more perplexed must an uninitiated person become, who only knows a name, and nothing whatever of the whereabouts. If I may venture to offer advice on this matter, the arrangement I recommend is to divide your mines into four classes, alphabetically, thus:—

1. Mines in all the county of Devon.
2. All other British mines.
3. Foreign.

And I would not hesitate in doing this, for you will, I am quite sure, thereby consult the convenience of your numerous readers, and amongst them of  
MONTON.  
London, Jan. 10.

#### MINING APPOINTMENTS DURING JANUARY.

11. Pay at East Croft, West Treasury, Alfred Consols, and Phoenix United Consols.
13. North Rooker account, on the mine.
14. Wheel Buller and Alfred Consols accounts on the mine.
15. Great Consols account on the mine. Sampling at Consols, United, and other.
16. No copper ore ticketing this week.
17. United Mines account on the mine. Pay at Wheel Buller and Levant.
18. Pay at Great Consols, Cornish, Cook's Kitchen, Pendarves, Seton, Fowey Consols, Treviskey account on the mine.
20. Treviskey account on the mine.
21. East Croft account on the mine.
22. South Tolgus account on the mine. North Pool and other mines sampling.
23. Ticketing at Truro, Devon Consols, and other mines.
24. Pay at North Pool Mine.
25. Pay at Tywarthayle, Treviskey, West Seton, Agar.
26. Treviskey account on the mine.
29. Carn Brea and other mines sampling.
30. Ticketing at Truro—Consols, United, and other mines.
31. East Croft setting—pay at Carn Brea, East Pool, Tincroft, Treleigh, Ellen, and

Yesterday, William Daniels, described as a civil engineer, and mentioned in another part of the Journal as having been brought up to Guildhall on a charge of forging Wheel Mary Ann mining shares, was again examined. Mr. Fuller, the party defrauded, deposed to the facts of the transaction as previously stated, and Mr. Bunyer, landlord of the "Old Bell," Holborn, proved the receipt of 500l. by the prisoner, in acknowledgment of which he signed his name "W. D. Boase." Mr. Boase, who is a solicitor at Liskeard, deposed that he never authorised any one to write a receipt on his behalf; the letters and signature were very like his handwriting; he knew the prisoner, who was a surveyor in Cornwall, and sometimes did business as a mining sharebroker. It appeared that there were two other cases against the prisoner of attempting to obtain similar sums, in both of which he failed. In a third case, however, he obtained 500l. in a manner exactly similar to the above. The prisoner was again remanded, in order to complete the evidence against him.

COALS FOR INDIA.—The Home and Finance Committee of the India House will be ready, on or before Wednesday next, to receive tenders for 4500 tons of coals, to be delivered at Aden, on the southern coast of Arabia. On Tuesday next the Lords of the Admiralty will receive tenders for 3000 tons of Welsh coals, for the Government steam-vessels; and on the 28th, for 3500 tons for Fernando Po; Londo, 3000; Sierra Leone, 2000; and Ascension, 2000 tons.

#### Current Prices of Stocks, Shares, & Metals.

**MINES.**—The business of the week has been characterised by a remarkable degree of steadiness, both in the way of inquiry and purchases of mining shares, and the sums constantly invested are to an amount hitherto unknown, so far as British mining is concerned, as well as upon a sounder basis. Capitalists begin themselves to study and appreciate the phases of a particular mine, whether already paying dividends or approaching them; and it is to be hoped that a similar caution will be exercised towards all the new projects which the state of things described, in conjunction with an easy money market, naturally originates. We may mention, as an interesting fact, that within two months the advance in Devon Consols has been nearly 60% per share, and all other first-rate concerns in proportion.

In the Metal Market there is a considerable demand for Lead, which has increased in price.—Tin has also improved: much inquired for, with limited supply.—Copper very firm.—A moderate business has been done in Spelter.—A rise in the price of tin has taken place at Hamburg.

The South Friendship Wheel Anne has sold 3½ tons of black tin, at 467 7s. 6d. per ton.

The Drake Walls Mine sold 12 tons of tin at 441 10s. per ton, and 7 tons at 407 10s. per ton. The mine is looking much as usual.

The Great Beam Mine sold five parcels of black tin, at prices varying from 467 10s. to 607 per ton.

East Logylas sold 110 tons of lead ore, at 117 17s. per ton; and Froncoch, 80 tons, at 125 1s. 6d. per ton.

The produce of the Lisburne mines is computed at 285 tons for Dec., and 282 tons for Jan. The report continues favourable.

The Mold Mines sold 50 tons of lead ore, at 117 1s. 6d. per ton.

The Driggith Mine sold 12 tons of lead ore at 134, and 6 at 97 per ton.

The monthly sale of lead ore from Herodsfoot took place on the 9th inst., when 75 tons realised 125 3s. 6d. per ton, or 9137 2s. 6d.

Three parcels of lead ore from South Australia were sold at Holywell—28 tons at 131 10s., 32 tons at 107 12s. 6d., and 18 tons at 87 6s. per ton.

At the Bat Holes Mine, four men are put to drive a level on Barratt's lode, at 11 5s. per fm., which will yield 4 cwt. of lead ore per fm. The steam-engine works well. The estimated produce for Dec. is 60 tons.

The Glengola Mine (Galway) is doing well. The lot of lead ore sold on the 3d inst. for 70 tons turned out to be 75, at 117 5s. per ton.

In the sinking of Cooney's, or the eastern shaft, they have cut a fine branch of ore. The Colonel's shaft is still very productive, and Paul's gives good promise. The mine was only commenced on the 11th Jan., 1850, and has yielded, up to the 31st Dec., 192 tons 10 cwt.

At Mill Pool the lode has been cut rich in the engine-shaft, and a pitch set in each end at 1s. in the 17.

At Treghorden the lode in the 30 fm. level is worth 407 per fm.

At Hencock they have cut into the lode 5 ft., which is showing an improvement from the 10 to the 20 fm. level.

At Alfred Consols the stopes in the 70 fathom level are still worth 1507 per fm., and the lode in the winze sinking under the 60 fm. level from 1407 to 1607 per fm.

At Nanteos Mines the lode in the 30 fm. level east has improved, and now yields ½ a ton of ore per fm. The sampling for the month will be from 35 to 40 tons of ore.

At West Providence, the tin in reserve is valued at 30,000l., which can be taken away at an expense of 2s. 6d. in 17, as soon as the machinery is complete for making it marketable.

At Spearne Consols a pitch has been set in the 116, west of engine-shaft, to six men, at 2s. 9d. in 17, and this set of men will break upwards of 2000 tons of tin.

The Warleggan report states that a new lode has been discovered in the bottom of the adit, in the south part of the mine. It averages about 18 in. wide, and is believed to go the whole depth of the adit, being viewed as a discovery of considerable importance to the interests of the adventurers.

It appears that the lode was left standing in the former workings.

The Mineral Court report states that the lode in the 40 fathom level has been cut through, its size being 6 ft., of which 3 ft. 6 in. is tin work of good quality, verifying the anticipations of the agents as to the increased value of the lode in every succeeding level.

At East Wheel Rose meeting, at Truro, on Tuesday, the accounts for September and October were presented, showing—Balance from last account, 26337 7s. 5d.; ore sold (less dues), 7717 19s.; Cargill adventurers, for water charge, &c., 1117 16s. 9d.; 10,4637 3s. 2d.—To costs, coals, and merchants' bills, 55817 12s. 1d.; Stannary Court and other taxes, 2477 11s. 7d.; carriage of ore and coals, 2057 6s. 9d.; discount on ore bills, 37 3s. 6d.—By dividend of 157 per share, 19207: leaving balance in favour of adventurers of 25057 9s. 3d.

At the South Wheel Frances meeting, on Monday, a dividend of 167 per share was declared. The accounts showed—By balance end Sept., 9327 15s. 5s.; ore sold Oct., Nov., and Dec., 42857 3s. 6d.; debts received, 57 9s. 6d.—52237 8s. 5d.—Labour cost for Oct. and Nov., 14937 4s.; merchants' bills, 7707 19s. 11d.; dues, 2857 13s. 6d.—25497 17s. 5d.: leaving balance of profit, 26737 11s.; deduct dividend of 167 per share, 19847: leaves balance now in hand, 6897 11s.

A dividend has been declared by Carn Brea of 27 per share (20000l.)—the entire amount paid in the course of last year 13,0000l. this is exclusive of 30000l. expended in erecting a new engine on Barncoose, the eastern part of the sett. A very fine lode has been recently opened upon.

At the Bedford United meeting, on Wednesday, a dividend of 6007, or 3s. per share, was declared. The accounts showed a cash balance of 4587 5s. 2d., and ore bills, &c., making credits 20677 16s. 2d.; estimated costs for December and January, 10007: showing 10677 16s. 2d. of receipts over payments. The statement of assets and liabilities showed—assets 16977 8s. 3d. over liabilities. The report of the agent, detailing the condition of the mine and operations in progress, will be found under the head of Mining Correspondence.

A special general meeting of Holmbush Mine adventurers was held on Wednesday, to take into consideration a report from Captain Lean (who was present), as to more extensive operations at the mine. A statement of assets and liabilities was presented, and a call of 17 per share made.

Capt. Lean's report as to the present and future prospects of the mine (inserted in our advertising columns) being considered highly satisfactory, was adopted. Not less than 30,0000l. of ore was stated to be in sight at the present time.

The Rocks and Treverbyn United Tin Mines two monthly meetings was held at Manchester on Monday, when the accounts showed—Mine cost for October, 3507 4s. 6d.; merchants' bills, 1207 1s. 11d.—4707 6s. 5d.—By November sale of tin (less dues), 4287 5s. 3d.: leaving loss of 427 1s. 2d.

—Mine cost for November, 4327 15s. 1d.; merchants' bills, 1427 12s. 4d.—3757 7s. 5d.—By December sale of tin (less dues), 5357 9s. 2d.: leaving loss of 397 18s. 3d.; add balance of general account, 1857 9s. 2d., leaves balance now against adventurers, 2677 8s. 7d.—Arrears of calls, 3007.

At the Pen-y-Bank and Erglodd meeting, on Monday, the accounts showed—Balance from last account, 6987 9s.—Mine cost for September, 707 18s. 1d.; for October, 627 2s. 1d.—1337 0s. 2d.: leaving surplus in favour of adventurers, 5657 8s. 10d.

At a special general meeting of adventurers in Wheel Sarah, on Monday, a call of 10s. per share was made, to pay off recent liabilities, and for future costs. A special meeting has been convened for the 25th inst., to receive a report from Mr. Murray, on the progress of the workings at the mine, and to decide on holding a meeting at the mine for general purposes.

The West Wheel Virgin account showed—Balance in hand, 767 18s. 5d. The assets are 3487 12s. 5d., and the liabilities to the end of December 3707 9s. 11d.: leaving a balance of liabilities 217 17s. 6d. The agents' report states that the engine-shaft is being sunk under the 9 fathom level, and will, it is calculated, be down 9 fms. early in February. There is a good lode of tin all the way in working, but the best part of the lode is in the east end of the shaft; and if it proves equally good in extending the level, it is calculated that a good quantity of tin will be raised during the next three months. A call of 5s. per share was made, and a finance committee appointed.

At the third quarterly meeting of the Trelovel Mining Company, on Tuesday, the accounts for the four months ending Nov. showed—Labour cost, 4437 16s. 3d.; merchants' bills, 5037 4s. 7d.; sundries, 437 10s.; balance against adventurers at the last meeting, 14727 14s. 1d.—24627 14s. 11d.—By second call, 30s. per share, 15007: leaving balance against adventurers, 9627 14s. 11d., to meet which a call of 17 per share was made.

During the past three months the only operation carried on had been sinking the engine-shaft. The managing agent continues sanguine as to the result of the adventure, and the prospects of the mine remain equally favourable. A report was read from S. H. Thomas, Esq., the manager of the Allen Copper Works, which, after a private inspection of the

mine, is stated to confirm in every respect the opinion of the managing agent. [The report of the committee is given in full elsewhere.]

At a meeting of Trelyon Consols, on Monday, it was determined that the mine should be held in 600 instead of 150 shares. The agents gave a favourable report of the mine, and consider that, if present prospects continue, they will shortly be able to declare dividends. They have a good copper lode in the 60, in Wheel Margery, and an excellent tin lode in the 39 in Wheel Venture, both of which have held for several fms., and present appearances indicate their continuance.

At the Wheel Augusta meeting, the accounts showed—Liabilities, including estimated cost for Jan. and Feb., 5467 17s.—Assets, 1787 5s.: leaving balance against adventurers, 3687 127. A call of 4s. per share was made, and it was resolved that a steam-engine should be erected as soon as recommended by the agents, with a view to the effectual working of the mine. The report of Capt. Cartwright detailed the operations from the commencement in April, and stated that, by the end of the present month, everything will be ready to sink the engine-shaft and extend the levels on the engine lode, after which it is anticipated a good quantity of tin will be raised. The report also stated that there is a fine course of tin in the bottom of the 18 fm. level, west of engine-shaft. There is now about 607 worth of tin stuff at surface, and stones of tin have been taken out weighing more than 9 cwt.

At the Yeoland Consols meeting, after reports from the committee and agents had been read, it was resolved to proceed with the adventure, and upwards of 1000 shares were subscribed for at the meeting. The junction of the Plymouth Wheel Yeoland, and Plymouth Wheel Yeoland East, which form the present undertaking, will enable the operations to be carried out on an extended scale. Between 20000 and 30000 worth of tin had been raised from the 20 and 30 fm. levels.

At the North Buller meeting, on the 10th inst., the statement of the finances showed balance in hand, 2857 15s. 4d., and a call of 17 per share was made. The chairman said the prospects of the mine had greatly improved since the last meeting; the steam-engine would shortly commence working, and several lodes had been discovered in sinking the engine-shaft, one of which contained a good course of grey copper ore.

At the East Balleswidden meeting, it was stated by Capt. Cartwright that the engine could be got to work in less than two months. In extending the 10 fm. level west on the engine lode, it was hoped that they would cut the flat lode, when it was anticipated that a great quantity of tin stuff would be raised. The accounts showed a balance in hand of 2737 17s. 10d., the assets being 3167 7s. 10d., and liabilities 2647 10s. 10d.: leaving balance in favour of adventurers, 517 17s. The agents' report was adopted, and a call of 5s. per share was made, in further prosecution of operations.

At the Wheel Harriet meeting, Messrs. Reid, Knowles, Armitage, Nicholson, and Bellinger, were elected directors. The report was highly satisfactory; the north lode produced a specimen of grey oxide of copper, 50 lbs. weight, of 40 per cent. produce. From the large balance in hand to prosecute the works, there is every prospect of a profitable mine.

At the Pennant and Craigwen Consols meeting, a lengthened report from the directors was read, expressive of their regret that the affairs of the company had not made the progress that had been anticipated. Owing to an accident to their wheel, the machinery erected for crushing and dressing the ore was for some time suspended, but its working is now resumed, and the quantity of ore on the bank ready for crushing is very considerable. Notwithstanding the delay occasioned by the accident to the machinery, it was deemed advisable to continue the working within the mine; and it appeared that the expenditure for labour and other costs from June to the end of December is 8407 11s. 7d.; and in addition, 9007 has been paid to the landlord on account of the purchase, the latter having agreed to forego the balance of 4307, and the purchase of the lease being thereby completed. To meet this outlay the directors had been compelled to advance the necessary sums out of their own resources, making together 4607, besides 3257 borrowed last March and April, as authorised by the proprietors. These advances on the part of the directors are adverted to in the report, in proof of their confidence in the ultimate success of the company, to ensure which, however, "another effort" was required—viz., to make a fresh call of 5s. per share, to extricate them from their present pecuniary difficulty, and enable them, with the moneys they hope shortly to receive from the sale of ores, to resume working the mine with the requisite energy. Under the peculiar circumstances, the directors have felt compelled to stop all work at the mine, except those necessary for preparing the ore now on bank for market. In future, it is intended that a printed statement of their reports and accounts should be placed in the hands of each shareholder prior to the general meetings, in order that he may come prepared to ask such questions as may be deemed necessary. A report from the agent, Capt. Hugh Jones, was read, containing full particulars as to the state of the mine, and among the resolutions adopted was one empowering the directors to make a call of 5s. per share. A sample of amber was produced, of which there was stated to be a large quantity at the mine capable of being rendered available for the market, and which may be seen at the offices of the company.

The accounts presented at the Craig-y-Mwyn meeting, showed a balance in favour of the mine of 487 9s. 4d., the produce of sales of ore in Dec. being 3087 8s., and the mine cost for three months' working, 2557 18s. 8d. A call of 5s. per share was made to meet the cost of a new water-wheel, the erection of which is recommended. Some good specimens of ore were exhibited at the meeting, and the report was considered highly favourable.

At the Peter Tavy and Mary Tavy Consols meeting, the report of the committee stated that an extension of the leases of the company had been effected, at an outlay of 2007. The previous balance of 6727 9s. 1d. had been reduced to 5297 16s. 5d., out of which 2007 is to be paid for the extension of the leases referred to. A promising lode has been laid open, and a shaft will be sunk early in the spring. The agent's report states that he expects to reach better ground shortly in the bottom of the winze. The exertions of the committee on behalf of the adventurers were cordially acknowledged, and sanguine hopes were expressed of the ultimate success of the speculation.

A reference to our Share List will show the extent of transactions during the week—in many instances, as will be seen, at an advance on previous quotations, while some have slightly receded in price. Among the former may be named Wheel Mary Ann, Devon Great Consols, Treviskey, Treviskey, North Buller, Wheel Union, East Pool, South Wheel Basset, Mill Pool, St. Aubyn and Grylls, and Wellington. In general, the late tendency to a rise in prices has been steadily maintained.

In Foreign Mines business has been done in Australian, Imperial Brazilian, National Brazilian, St. John del Rey, United Mexican, Alten, and Santiago.—The Marmato Company have declared their first dividend, for the half-year, of 17 per share.

A requisition has been presented to the directors of the Australian Mining Company to convene a special meeting, when, we understand, the affairs of the association will be investigated, with the view of an entire alteration being effected in the management.

By the late advices from Australia, we learn that another dividend of 107 (200 per cent.) has been paid by the Barra Barra Mine. The smelting operations of Messrs. Schneider, at Roomiga, are carried on with activity, yielding, it is said, about 50 tons of copper a week. The only mine in the colony which has declared any dividend, besides the Barra Barra, is Wheel Margaret (silver-lead), on the Paringa property, on which 20 per cent. has been declared. Two furnaces are kept at work at Kapunda Mine to reduce the poor ores; at the works of Messrs. Schneider seven smelting and two refining furnaces are in work. Mining speculation is active in the colony, though in some instances it would appear to be far from being legitimately carried out.

The Linares weekly report notices no new feature in the operations. Wilson's shaft was sunk 10 fms. during December, and the indications of the lode are favourable, it being now worth 4 tons per fm. On account of the quantity of ore already broken, the setting of the tribute pitch is delayed until the quality of the ore is ascertained. The erection of the contemplated works for smelting was about to be commenced when the report was forwarded. The amount of ore in stock, as will be seen, is 458 tons.

The report read at the Royal Santiago meeting, which will be found in another page, states that there is a loss on the operations on the last half-year of 31177 16s. 4d. The cost of the mine had amounted to 91047 15s. 2d., and the proceeds, including the interest on money lent on security, 59867 18s. 10d. The quantity of produce was about 300 tons less than had been expected, and the quality was, generally speaking, inferior. The report of Captain Hoskins, however, was strongly in favour of continued operations at Perseverancia, of which the lode in some places promised extraordinary richness. The mines of the company are within a very short distance of the Cobre, which are stated to be working at great profit; and it is yet believed that the ground held by the Santiago Company may prove similarly productive, more especially when they had gone deeper than at present. The Chairman, Baron de Goldemid, expressed a hope of a more favourable result for the next half-year, their prospects being, in his opinion, decidedly better. The report was adopted by the meeting.

HULL, THURSDAY.—Messrs. T. W. Filst, and Co., state that during the week there has been a limited amount of business done in mining shares, but prices have been steadily maintained. There has been some little falling off in the demand for Wellingtons and Treviskeys, and rather lower prices have been submitted too. The report and the dividend of the Bedford United Company have given satisfaction, but the price has not advanced. West Providence are rather more sought after; Trevels and Gustavus neglected; West Tolgus, fluctuating, done at 7½ to-day. Railway shares have been without material change, and the business done has not been to a very large extent.



## LATEST CURRENT PRICES OF METALS.

LONDON, JANUARY 10, 1851.

ENGLISH IRON.	per ton.	Tile	per ton.	ENGLISH LEAD.	per ton.
Bar, bolt, & square, London	23 10-5 15	Old copper	8 10-5 15	Pig	10-18 0
Nail rods	0 5-5 15	Yellow Metal Sheathing	8 10-5 15	Sheet	18 10-19 0
Hoops	7 15-8 5	FOREIGN COPPER.		Pipe	19 0 0
Sheets (single)	4 15-4 17 6	South American, in bond	77 0-87 0	Red lead	19 0 0
Bars, at Cardiff & Newport	3 0-3 15	ENGLISH LEAD.		White shot	24 0 0
Refined metal, Wales	3 0-3 15	Pig	10-18 0	Patent ditto	20 10 0
Do. anthracite	3 10 0	Sheet	18 10-19 0		
Pigs in Wales	3 0-3 15	Pipe	19 0 0		
Do. do. forge	2 5-2 10	Red lead	19 0 0		
Do. No. 1, Clyde, net cash	2 4-0 2 5	White shot	24 0 0		
Blewitt's Patent Refined Iron	3 10 0	Patent ditto	20 10 0		
for bars, rails, &c., free on board at Newport	3 10 0				
Do. do. for tin-plates, boiler plates, &c., ditto	4 10 0				
Stirling's Patent in Glasgow	2 15 0				
Toughened Pigs in Wales	3 10-3 15				
Staffordshire bars, at the works	6 0 0				
Rails	4 17 6-5 2 6				
Chairs (Clyde)	4 0 0				

Terms.—a, 6 months, or 2½ per cent. dis.; b, ditto; c, ditto; d, 6 months, or 3 per cent. dis.; e, 6 months, or 2½ per cent. dis.; f, ditto; g, ditto; h, ditto; i, ditto; j, net cash; k, 6 months, or 3 p. cent. dis.; m, net cash; n, 3 months, or 1½ p. cent. dis.; o, ditto; 1, ditto.

Cold-blast, free on board in Wales.

WELSH BARS remain unsold, but very firm—there are few sellers under 5l.

SCOTCH PIGS have been inactive this week, and transactions have taken place to only a limited extent, and for immediate wants.

LEAD.—The market has advanced 5s. to 10s.; there is a large demand, and but a limited supply.

FOREIGN TIN continues looking up, and the full rates of last week are obtainable; the quantity offered is very small, and entirely at second hand.

ENGLISH TIN continues to decline, but a few parcels of bar blocks at second hand have been sold at the quotations. No refined is to be had, than at an advance, which inconveniences the tin-plate manufacturers considerably.

TIN-PLATES are very firm, and a good business is doing.

COPPER is firm, and unaltered.

SPELTER.—About 600 tons have been sold this week at 16l. per ton, part on the spot, and part at arrival.

GLASGOW, JAN. 9.—Our pig-iron market has been very quiet this week, and but little business has been done; there are, however, considerable orders on hand for iron to be shipped, but there is a great scarcity of vessels. There was more disposition to purchase to-day, and warrants for mixed Nos., good brands, free on board here, may be quoted 44s. 6d. to 45s. per ton. net cash; Gartsherrie, No. 1, 45s. per ton. Malleable continues very firm, and the works are fully employed.

## THE METAL TRADE DURING THE PAST YEAR.

SIR.—The year just closed, although it has not been marked by any extraordinary fluctuations in price, or speculative excitement in the metal market, has yet been found to produce a fair amount of business, marked by that caution and circumspection which passing events have rendered necessary. Doubtless we live at an important period; established usages are no longer sacred; privileges and partialities in trade can no longer be expected; energy and superior skill must alone win the day; the object henceforth is to produce the best material at the cheapest rate, and whilst provisions, conveyance, and communication are all rendered lower, it is not unnatural to anticipate corresponding results in manufactures. It should not be, therefore, any source of dissatisfaction or uneasiness if we are not enabled to report those prices which, under a different system, were found occasionally to exist; it is rather a matter of consideration, whether we are not really better off at its commencement than when figures were necessarily high. As far as the metal market is concerned, the year 1850 has commenced, with hardly an exception, under very favorable auspices, especially for British goods; and it is gratifying to observe the essential and excellent reforms which have been effected in the iron trade, and which cannot fail to add to its advantages, and tend to make this important branch of commerce really beneficial in its operations to the country at large.

The IRON MARKET, at the commencement of 1850, had been the subject of a very lively demand, under the expectation of prices recovering the effects of previous disasters, and very large orders were entered. It soon became evident, however, that the production was progressing too rapidly; and a reaction, more extensive than previously, was threatening. The heavy shipments of 1849, accumulating stocks in India, the uncertainty of American legislation, and the unsettled state of continental matters, have also had their influence, and rendered makers and shippers more wary in their operations. The market, however, has at length been gradually smoothed down, and accommodated to these combined influences; and I am enabled to report steady and improving prices. A very considerable reduction has also been effected in make, which has prohibited the ironmasters in Wales and Staffordshire overloading their works with large orders for deferred deliveries.

WELSH BAR-IRON commenced last year at 5l. to 5l. 5s. per ton, with a good business. From some of the causes above enumerated, the price dropped 5s. to 7s. 6d. per ton about March, and again 2s. 6d. in April. It ruled low during the summer; and the principal business was transacted at 4l. 10s., 4l. 12s., and 4l. 15s. After the exhibition of very great languor, the market has lately improved, with a steady advance from those prices, owing to a better demand for exportation, and the immense orders for rails from all parts. From this latter circumstance there is reason to expect a considerable advance on the present rates of bar-iron. The quotation at present is 5l., free on board in Wales; 3 per cent. for cash, immediate specification. Makers show no disposition to sell; and very large orders have been refused at 4l. 15s.

RAILS have been, and still are, in great demand; the trade have been buying up at 5l., and very extensive sales were made at this rate, since which orders have been returned, and nothing can be obtained under 5l. 5s. to 5l. 7s. 6d., free on board in Wales, net cash. STAFFORDSHIRE IRON has experienced more or less depression during the year, and, as a consequence, the production has been more limited. The late improvement in Welsh iron has also extended to Staffordshire, and we are encouraged to indulge in more cheering anticipations, based on a more solid foundation than for some time past; orders offered now at the selling prices of a month back are refused, while an advance of 5s. per ton has been readily paid.

Sheets.....£8 12 6 to £8 2 6 } less 2½ per cent. free on board  
Hoops.....7 0 0 to 7 10 0 }  
Nail Rods.....6 0 0 to 6 10 0 }  
Bars.....6 12 6 to 7 0 0 } in London.

SCOTCH PIG IRON has been the subject of a very important movement during the past year. The system of effecting sales on "makers' scrip," which originated during the excitement of speculation, has at length reached its end, and from the fact of this description of paper not being considered legally binding, and as it only establishes a fictitious market altogether, the trade have unanimously resolved to take measures for its relinquishment. The banks in the first instance showed an indisposition to continue advances on these documents, which circumstance involved the necessity of converting the scrip into iron at once; and placing it in store, and buyers generally will do well to adhere to the plan of taking storekeepers' warrants only in exchange for their cash, as the only safe and natural method of doing business.

Present price, mixed numbers. 44s. 3d. net cash  
Ditto ditto 45s. 6d. 3 months' open delivery } f.o.b. in Glasgow.

The market during the year has suffered from the above circumstances, as well as the uncertainty of the real position of the trade. As this alteration, however, became evident, greater confidence was encouraged; and this article now bids fair to offer a safe investment for capital. The prices have not fluctuated to any great extent since Feb. and March last, when they had fallen from 49s. to 44s. A moderate amount of business has since transpired at prices between 44s., 42s., 6d., and 45s. The shipments from Glasgow, Ayrshire, and the eastern ports, consist of 324,650 tons, showing a decrease from 1849 of 50,467 tons. This decrease is found to the extent of 18,607 tons in foreign exports, and the remainder coastwise. The stock is supposed to consist of 273,000 tons—being an increase upon last year of 83,000 tons. Taking the low estimate of the exports into consideration, and the fact that we have now a great deal of iron in store, in the place of more makers' undertakings for the delivery of the same, we can easily make up for its apparent increase; but it must be remembered, as I have before stated in the Mining Journal, that it is far more satisfactory to observe the real stock of iron in store than to have a smaller stock of iron, and an unknown quantity of scrip floating in the market. The increased demand for rails and bars has also given the Welsh pig market a more animated appearance, and good business has been done. The present price is 3l. 5s. per ton, net.

SWEDISH IRON has fetched fair prices. The stock is low—say, about 300 tons; prices ranged from 12l. 10s. to 11l. 10s.; up to the present quotation, 12l. per ton, landed. The holders are firm.

SWEDISH KERO STEEL has been in moderate demand; and the supply has not been in excess. Prices paid have been 14l., 14l. 15s., and 14s. 10d. Holders are not anxious to sell.

SPELTER has been the subject of a great deal of business, and very large parcels have been continually changing hands. The year commenced with a lively market at 16l. 2s. 6d. for arrival. A brisk speculation rapidly brought the price to 17l., at which price a good quantity was sold for spring delivery. After reaching 17l. 15s. on the spot, a reaction occurred in March and April, bringing the price down to 16l. 5s. Towards the latter end of summer, prices again improved, and purchases were made for delivery next spring from 16l. up to 16l. 7s. 6d. in large quantities, and the price on the spot advanced at a corresponding rate. This state of things has not, however, been maintained; and with an increasing stock, prices have again receded; and a very slight advance has been made at 16l. There is some inquiry at present at this rate, and a very slight increase would give more tone, as the exports have not been excessive; and the daily increasing uses of this metal, both here and on the continent, encourage us to anticipate a more extensive demand than hitherto. The stock on the 1st instant consisted of 6827 tons. The stock on 1st January, 1849, was about 6800 tons, and the price 20l.

TIN has figured in a very active manner since the commencement of the year. A smart speculation in the early part succeeded in bringing the price of Banca from 80s. to 86s., at which latter figure a very considerable quantity was taken up. English also advanced from the same causes to 86s. for bars, and 85s. for blocks; the stocks became concentrated in a few hands. A want of shipping demand, however, produced a gradual decline in prices, until sales of Banca were made at 70s. The gradual withdrawal of nearly all the available stock in Holland, tended to give more strength to the market there, while the principal holders here evinced no disposition to sell during the low prices. A larger demand for English refined, coupled with a scarcity of that article, led to an increased enquiry for Banca and fine Straits, which have been found to answer the same purposes; speculators have lately been buying up all in the market, and prices have now very nearly reached the same position they occupied this time last year, with this addition—viz., that at the end of 1849, consisted of 730 tons, against 570 tons on 31st Dec., 1850.

English Bar Tin	£84 0 0 per Ton	
Block	82 0 0	less 2½ per cent. free on board
East India, Banca	82 0 0	in London.
Straits	84 0 0	

COPPER was advanced ¼d. per lb. at the commencement, bringing tough cake to 88l. 10s., and reduced again in June; a further reduction of ¼d. per lb. was made in August, owing to the accumulation of stock. An intention of an immediate advance brought a great number of orders for sheeting into the market, and the standard was at length raised ¼d. per lb. in October, at which price the market is steady, viz. 1—

Tile	£23 0 0 per Ton	
Tough Cakes	84 0 0	less 3 per cent. free on board
Sheeting	0 0 8	in London.
Yellow Metal	0 0 8	

Owing to the high prices which have been maintained in this market, the Australian colonies have lately been enabled to export their own copper to India considerably under our selling prices.—South American has sold readily during the year; the prices are about 77l. for ordinary quality, 87l. refined in ingots.

LEAD began at 16l. 5s., with an upward tendency; the sudden influx of American orders brought the price up another 30s. in February, and produced a similar advance in March. After a good business at 18l. to 18l. 5s. per ton, the market has since yielded slightly, and we have had a gradual decline since then, with slight fluctuations to the present figure, 17l. to 17l. 10s., free on board in London.—Spanish has met with ready sale lately, at 16l. 10s. to 17l. per ton.

TIN PLATES have been in good request throughout the year, beginning the year at 28s. 6d. for coke, per box; they yielded, as usual, in the summer, about 1s. to 1s. 6d. for ordinary make; but the immense demand, and the high prices of tin have induced sellers to ask higher prices, and we now quote IC Coke to 28s., Charcoal 33s., 3 per cent. for cash, free on board in London.—C. ROBERT MOATE: Old Broad street, Jan. 10.

P.S.—Since writing the above, 100 tons Spelter, per spring shipment, have sold at 16l. 5s. The market is again looking up on 'Change.

## THE SCOTCH IRON TRADE.

The iron trade of Scotland has, during the past year, been marked by circumstances which have excited a good deal of attention in the commercial world. From the official tables, we find that the total shipments have fallen off, made up in part by an increased district consumption. The make, also, has been considerably reduced during the year, owing to the strike last summer, and the addition to stock has been, consequently, less than in 1849. The present stock, however, though heavy, has had no great influence on prices, owing to increased facilities afforded to merchants and speculators by the banks, and the diminution of scrip in the market. For some time past there has been a growing dislike to the system, and the English iron merchants have declined for a considerable period to operate on it. Several meetings of the trade have been held to substitute a more satisfactory mode of doing business, and storekeepers' warrants are consequently more in demand. The results of the year, compared with 1849, show the production of manufactured iron to be nearly the same in both years, with a decrease of 62,000 tons of pig-iron. This is accounted for from the irregularity of working the furnaces, through the strike above referred to. Notwithstanding the increased stock of pig-iron, 373,000 tons—in 1849 only 190,000 tons—the withdrawal from circulation of a large quantity of scrip has already very much reduced the available iron in the market; and should the scrip system be permanently discontinued, there is little doubt that when speculators have satisfied themselves with their dealings in pig-iron, the practice in use previous to its introduction will be resumed, and the iron trade conducted on principles similar to other branches of commerce. From July to December, the prices ranged from 44s. to 42s.; the present prices may be quoted 44s. to 44s. 6d., for all good brands free on board, ex-makers' stores, and 44s. 9d. to 45s. 3d. ex-storekeepers' yards; American brands, 6d. to 1s. 6d. higher; Forth iron, 44s. 6d. to 45s.; Kinnaird, 43s. 6d. to 44s. 9d. per ton, free on board in the Firth of Forth.

The total shipments from Glasgow, Ayrshire, and East Coast ports have been 324,650 tons, of which 124,376 tons were to foreign parts, and 190,083 tons coastwise, showing a falling off of 50,467 tons as compared with 1849—18,607 tons foreign, and 31,860 coastwise. The stocks in hand on 31st December amounted to 273,000 tons, being an excess over 1849 of 83,000 tons. The average price for 1850 was 44s. 4d., while 1849 was 76s., and the average of the last six years 57s. per ton. The average prices for the five preceding years have been—1845, 80s. 3d.; 1846, 67s. 3d.; 1847, 65s. 4d.; 1848, 45s. 6d.; and 1849, 45s. 6d. The number of furnaces in blast in December, 1850, was 105, and December, 1849, 114. The East of Scotland Malleable Works, having been lately purchased by enterprising parties, are expected soon to be in operation. The following is the quarterly statement for the three past years:

Furnaces in Blast	Jan.	April	July	Oct.	Dec.
1848	85	87	93	101	113
1849	104	108	110	112	113
1850	116	110	75	92	103

The total production of the year is estimated at 630,000 tons, being a decrease, as compared with 1849, of 62,000 tons. The principal exports have been—to France, 10,491 tons; Germany and Holland, 31,149 tons; Denmark, Sweden, and Norway, 7912 tons; Italy, 6502 tons; Spain, 4116 tons; Australia, 57,500 tons; British America, 10,091 tons; South America, 1645 tons; United States, 1080 tons, &c. The produce of malleable iron in Scotland was—in 1845, 35,000 tons; 1846, 45,000 tons; 1847, 60,000 tons; 1848, 90,000 tons; 1849, 80,000 tons; and 1850, 78,000 tons.

The last accounts from Glasgow continue to refer to the measures in progress for the abolition of the scrip system, which, however, are not yet at maturity. With regard to manufactured iron, there is every probability of an increase, as Scotch bars are now finding their way into all the markets of the world. The demand for plates and sheets is very large and increasing, and the makers decline to take orders, except at an advance. The increasing demand is, no doubt, attributable to the number of iron ships now building.

## EXPORTS OF METALS TO ALL INDIA FROM LONDON AND LIVERPOOL, FOR THE TWELVE MONTHS OF 1849 AND 1850.

Metals.	1849.	1850.	In. in 1850.	Dec. in 1850.
Spelter.....Tons	4941	5147	.....	684
Copper.....	6153	6988	.....	735
Iron, British.....	37448	53718	.....	16270
Ditto, Foreign.....	2320	1678	.....	642
Tin-plates.....Boxes	14832	20701	.....	5869
Lead.....Tons	3230	4056	.....	826
Steel.....	990	1107	.....	117
Quicksilver.....Bottles	407	55	.....	352

## EXPORTS OF METALS TO ALL INDIA AND CHINA FOR THE LAST FOUR YEARS.

Metals.	1850.	1849.	1848.	1847.
Iron, British.....Tons	33718	37448	.....	17705
Ditto, Foreign.....	1678	.....	.....	642
Tin-plates.....Boxes	14832	20701	.....	5869
Lead.....Tons	4056	.....	.....	826
Steel.....	1107	.....	.....	117
Quicksilver.....Bottles	55	.....	.....	352

The Board of Trade returns, just issued, furnish the imports and exports of metals for the month ending the 5th Dec., as well as the corresponding month of last year. It will be seen from the subjoined account, which refers to British and Irish produce and manufactures only, that the exports of all articles have been carried on upon a greatly increased scale. Of all descriptions of copper the exports are, for the month, 39,330 cwts. in 1850, against 32,934 cwts. in 1849, and 27,342 cwts. in 1848, whilst iron shows a proportionate increase—the total figures being, 1850, 52,856 tons; 1849, 48,718 tons; 1848, 34,872 tons. These results are also fully borne out by the figures for the 11 months ending with the same date:—

Metals.	1848.	1849.	1850.
Iron, pig.....Tons	6774	10159	10195
" bar, bolt, and roll.....	20118	2784	30012
" wire.....	256	291	249
" cast.....	939	1182	1520
" wrought of all sorts.....	6785	8938	10880
Steel, unwrought.....	481	712	815
Copper, in bricks and pigs.....Cwts.	9886	12753	14291
" sheets, nails, &c. (including mixed or yellow metal for sheathing.....	14752	18521	23411
" wrought of other sorts.....	2704	1660	1628
Brass of all sorts.....	1661	3143	4737
Lead.....Tons	365	993	2685
Tin, unwrought.....Cwts.	1164	1349	1709
Tin-plates.....£38,814	£47,160	£68,812	

Of metals of colonial and foreign origin the exports, during the same month of the three years, are as follows:—

Metals.	1848.	1849.	1850.
Copper, unwrought and part wrought.....Cwts.	360	379	1433
Iron, in bars, unwrought.....Tons	188	398	374
Steel, unwrought.....	47	59	23
Lead, pig and sheet.....	60	28	354
Spelter.....	141	191	76
Tin, in blocks, ingots, bars, or slabs.....Cwts.	148	444	84

The returns of imports, both for the month and the 11 months, show that the introduction of foreign and colonial produce continues on a large scale, especially as regards copper and tin. The returns are as under:—

Metals.	1848.	1849.	1850.
Copper ore and regulus entered under Act 11 and 12 Victoria, c. 127, and previous resolutions.....Tons	3397	2668	3439
Iron, unwrought and part wrought.....Cwts.	1203	1849	5389
Iron, in bars, unwrought.....Tons	2862	1538	2780
Steel, unwrought.....	4	162	4
Lead, pig and sheet.....	205	498	1387
Spelter.....	1428	2063	1248
Tin, in blocks, ingots, bars, or slabs.....Cwts.	930	846	1001

The following return shows the value of mineral produce of English origin exported in the month ending Dec. 5, 1848, 1849, and 1850:—

	1848.	1849.	1850.
Alkali .....	£24,439	£21,348	£28,230
Salt .....	23,266	16,428	14,980
Coals and culm .....	75,914	68,337	91,385
Earthenware .....	46,679	63,663	81,852
Glass .....	14,237	23,729	25,087
Hardware .....	144,474	206,069	224,456
Machinery .....	64,593	66,287	61,772
Iron and steel .....	285,584	358,609	365,840
Tin .....	43,491	52,387	75,072
Total .....	£723,157	£867,357	£969,040

The following is the value of exports chiefly of English, but partly of foreign origin:—

foreign origin:—	1848.	1849.	1850.
Copper and brass .....	£132,859	£158,867	£190,032
Lead .....	6,924	16,339	43,948
Together.....	£139,783	£175,206	£233,980

Of articles coming into competition with our mining interests the imports were:—

	1848.	1849.	1850.
Brimstone.....Tons	1103	2359	894
Barilla and alkali.....	91	275	151
Iron in bars.....	2852	1558	2750
Steel.....	4	162	4
Lead.....	205	458	137
Tin.....	46	42	50

Of other mineral produce the import has been as follows:—

	1848.	1849.	1850.
Copper ore, &c.....Tons	3458	2760	3708
Zinc.....	1428	2063	1248
Saltpetre.....	1418	433	1280
Quicksilver.....	—	55	25

MONKWEARMOUTH COLLIERY.—Considerable excitement has been occasioned in Sunderland, in consequence of the guardians having represented the spontaneous combustion of the pit heap at this colliery as a nuisance, and the vestry having decided to compel the owners to remove it. This colliery pays from 1600l. to 2000l. per week in wages—one-third of all the rates and taxes of the parish; employs 1200 men and boys, and, in addition to the enormous sum sunk in winning the coal, the proprietors have expended upwards of 50,000l. in improvements. If the decision to remove the heap is persevered in, it is said the expense will be ruinous, and the suspension of the workings must inevitably follow.

MADRID AND VALENCIA RAILWAY.—The further prosecution of the inquiry into this company's affairs is appointed to take place next week.

ZINC.—The German Customs-Union is the most important country in the world in reference to the production of zinc. The chief supply of this important metal is from Upper Silesia, and amounted in 1848 to 361,931 cwts.; in 1849, to 452,546 cwts. of unwrought zinc. The zinc plate produced in the above years amounted, in 1848, to 14,950 cwts.; and 1849, to 19,558 cwts.; these ores, as also the processes adopted in the smelting, cleansing, rolling, and casting, are very peculiar. The Royal mines, at Königshütte, will furnish samples of specimens at the Great Exhibition, of the red and white calamine, as well as wrought and unwrought zinc. Brett and Co., of Stollberg, will send samples of Rhenish zinc, the raising of which amounted, in 1848, to 36,055; and in 1849, to 39,610 cwts. Joseph Cosack, of Arnberg, sends samples of the Westphalia zinc ores, of which 26,611 cwts. are annually raised.

## LEAD ORES.

TICKETINGS FOR ABOUT 100 TONS LAXE



## PRICES OF MINING SHARES.

It being difficult to obtain a correct knowledge of all the mines in our list, we trust that agents, and others interested, will assist us, by forwarding any additions, or corrections, with which they may be acquainted—our object being to present it as accurate as possible. We have also added a column to note the actual business transacted; but which, without the assistance of brokers and agents, cannot become so complete as we could wish. The desirability of such a record is generally admitted, and we invite the co-operation of all parties concerned, in rendering it perfect.

Shares.	DEVON DISTRICT.	Paid.	Last Price.	Transactions.
4000	Bedford United (copper), Tavistock	2 1/2	6 1/2	6 1/2 7
1200	Birch Tor and Vitrifer (tin), Dartmoor	1 1/2	4	
1000	Bridford Park (silver-lead), Plympton	1 1/2	3 1/2	
1000	Bridford Park (silver-lead), Plympton	1 1/2	3 1/2	
1000	Devon Great Tincroft, North Bovey	1 1/2	260	270 280
250	East Birch Tor (tin), North Bovey	3	3	
2048	East Crowndale (tin), Tavistock	7 1/2	1 1/2	
4000	East Gunnis Lake Junction (copper)	4	1	1 1/2
9000	East Tamar Consols (silver-lead)	1 1/2	1	
2048	East Wheel George (cop.), Walkhampton	1 1/2	10	
512	East Wheel Jeshal (copper), Tavistock	1 1/2	2	2
4500	East Wheel Russell (copper), Tavistock	1 1/2	6 1/2	
1000	Exmoor Eliza (copper), South Molton	2 1/2	2 1/2	
1000	Hennock (silver-lead), Tavistock	2 1/2	3 1/2	2 1/2 2 1/2
1000	Kingsett and Bedford (lead and copper)	2 1/2	3 1/2	
1744	Lumetree Wheel Maria (copper & tin)	1 1/2	12	11 1/2
3000	Nap Down (silver-lead), Combarnett	1	1	1
1000	New East Crowndale (copper and tin)	2	2	
1000	North Wh. Robert (copper), Walkhampton	2 1/2	2	
1000	Peter Tavy and Mary Tavy (copper)	2 1/2	10 1/2	8
612	Plymouth Wheel Teolond (tin), Plymouth	6 1/2	6	
2048	Rannaford Combe (tin)	2 1/2	8 1/2	
250	South Friendship Wh. Ann (copper & tin)	30	28 30	
6000	Tamar Consols (silver-lead), Beeralston	1 1/2	1 1/2	5 1/2 6
250	South Molton (lead)	12 1/2	12 1/2	
1000	South Plain Wood (copper), Ashburton	3 1/2	6 1/2	
9000	South Tamar (silver-lead), Bear Ferri	1 1/2	1 1/2	2 1/2
687	Tavy Consols (copper), near Tavistock	8	4 1/2	
1000	West Downs (copper and tin), Whitelchurch	2	2 1/2	
1000	West Wheel Friendship (copper)	3	3 1/2	
4000	West Wheel Russell	1 1/2	1 1/2	
1000	Wheel Adams (lead), Christow, Exeter	13 1/2	16	
250	Wheel Beany (copper), Calstock	19 1/2	19 1/2	
1000	Wheel Croche (copper), Tavistock	2 1/2	3	3 1/2
1000	Wheel Emily (antimony and lead)	2 1/2	5 1/2	6 1/2
1000	Wheel Fortescue (copper), Tavistock	1 1/2	6 1/2	
764	Wheel Franco (copper), near Tavistock	13 1/2	12 1/2	10 12 14
1000	Wheel Friendship (copper)	120	120	
1000	Wheel Hamlyn, near Oakhampton	2 1/2	1	
2048	Wheel Harris (lead), near Tavistock	2 1/2	1 1/2	1 1/2
2000	Wheel Langland (lead)	1 1/2	1 1/2	1 1/2
1000	Wheel Mary Ann (copper), Bridestow	1 1/2	1 1/2	
5000	Wheel Providence, South Tamar	4	2 1/2	2 1/2 4
1000	Wheel Russell (copper), Tavistock	4	4 1/2	

Shares.	EAST CORNWALL DISTRICT.	Paid.	Last Price.	Transactions.
3650	Bawden (silver-lead)	1 1/2	1 1/2	
1000	Bodmin (lead), Wadebridge	1 1/2	4 1/2	
5000	Bodmin Moor Consols (tin and copper)	1 1/2	4 1/2	
4000	Bodmin Wheel Mary (tin)	5	6 1/2	
4000	Butterdown (lead), Menheniot	1 1/2	8 1/2	
1000	Callington (lead and copper), Callington	26	6 1/2	9
4000	Calstock United (copper)	5	5	
1168	Caradon Great Cons. (cop.), Liskeard	1 1/2	3	
1336	Caradon Vale (copper and lead), St. Ives	1 1/2	1 1/2	1 1/2
3000	Carthage Consols (cop. & lead), Wadebridge	4	7	
500	Comblayn (lead), Callington	8	2	
1000	Combe Valley (tin), near St. Austell	2 1/2	2 1/2	
211	Cradock Moor (copper), St. Cleer	2 1/2	7	
2500	Drake Walls (tin and copper), Calstock	6 1/2	1 1/2	2
1000	Duke of Cornwall	3	3	
1000	East Polgooth (tin)	6	7 1/2	
1000	East Sharp Tor (copper)	5	8	
1000	East Trevellick (tin), Lanivet, near Bodmin	1 1/2	2	
494	Fowey Consols (copper), Fywardroath	40	30	
250	Gonnamena (copper), St. Cleer	40	15	
2000	Great Beam (tin)	5	11 1/2	12 1/2
1000	Great Sheel Consols (copper), Lanivet	3	5	
3072	Great Wheel Mitchell Cons. (cop.), Lanivet	2 1/2	5	
512	Gr. Wh. Rough Tor Cons. (cop.), Camelford	29	20	
6000	Grows Slate Company, Camelford	5	5	
1000	Hawkmor (cop.), Calstock, Gunnis Lake	5	17	
6000	Heigston Down Cons. (copper), Calstock	2 1/2	2 1/2	
512	Herdoford (lead), near Liskeard	27	14 1/2	12 1/2
1000	Holmehush (lead and copper), Callington	23	20 1/2	
6000	Marke Valley (copper), Caradon	10	3 1/2	
128	Metha (lead) Newlyn	34	40	50
250	Mineral Court (tin), near St. Austell	2 1/2	40	
1000	Moditham & Marabro (copper & lead)	1 1/2	2 1/2	3
1000	Okei Tor (lead)	1 1/2	4 1/2	4 1/2
128	Par Consols (copper), St. Blazey	5 1/2	650	
400	Penhanger	5 1/2	5 1/2	6
2048	Pentire Glaze (silver-lead), St. Minver	5	9	8
5000	Roche Rock (tin), Roche, near St. Austell	1 1/2	1	
5000	Rocks Mine (tin), Roche, near St. Austell	5	5	
250	South Caradon (copper), St. Cleer	5	200 210	205
250	South Trevellick (lead), near Liskeard	31	6 1/2	6
250	South Wheel Joint (copper), Calstock	2	4	
250	St. Minver Consols (copper and silver-lead)	1 1/2	6	
128	Takenbury (copper), St. Ives, Liskeard	7 1/2	8	
2048	Trebell Consols (tin and copper), Lanivet	14 1/2	1 1/2	
612	Trevellick United (lead), St. Teath	1	1	
5000	Tregear Consols (antimony & silver-lead)	1 1/2	1	
250	Tregorden (silver-lead) Wadebridge	10	7 1/2	
250	Trehane (silver-lead), Menheniot	1 1/2	15	
612	Trethvey (copper), St. Cleer	7	5	
612	Treville (lead), Liskeard	12	6 1/2	
5000	Warleggan Consols (copper)	1 1/2	1	
512	West Caradon (copper), Liskeard	20	97 1/2 105	102 1/2 105
1000	West Fowey Cons. (tin and cop.), St. Blazey	40	60	
1000	West Polgooth (tin), St. Ewe & St. Mewan	5	7	3
300	Wheel Arthur (lead), near East Wh. Rose	17	49	
2048	Wheel Arthur (copper), Calstock	1 1/2	1	1
1000	Wheel Bray (copper), Altarnun	11 1/2	1	
337 1/2	Wheel Calstock (copper), Calstock	9	9	
1000	Wheel Gress (silver-lead), near Liskeard	4	5 1/2	
1000	Wheel-an-Groes (tin), St. Columb Major	5	5	
250	Wheel Kingston (copper and silver-lead)	1 1/2	1	
6000	Wheel Langford (copper and silver-lead)	4	1 1/2	
1000	Wheel May (silver-lead and copper)	1 1/2	1 1/2	
512	Wheel Mary Ann (lead), Menheniot	5	60 63 65	65 1/2 67 1/2
3000	Wheel Penhale (lead and copper)	2 1/2	6	
128	Wheel Pollard (copper), St. Cleer	15 1/2	1	
1000	Wheel Sarah (silver-lead), St. Kew	5	7	
612	Wheel Sophia (silver-lead), Liskeard	7	7	
612	Wheel Spide (copper and lead), St. Columb	4	1	
1100	Wheel Trevellick (tin), Lanivet, Bodmin	8	8	
512	Wheel Trevellick (silver-lead), Liskeard	3 1/2	47 1/2 50	49 50 51
250	Wheel Trevellick (copper), St. Ervan	11	2 1/2	
1000	Wheel Vinton (silver-lead), Liskeard	3 1/2	9 1/2 10 1/2	10
910	Wheel Vincent (tin), Altarnun	6 1/2	4	
128	Wheel Violet (tin and cop.), St. Stephens	5	5 1/2	5 1/2 6 1/2
184	Wheel Vyvan (cop. & tin), Constantine	60	60	

Shares.	ST. AGNES, NEWLYN, AND PENZANCE DISTRICT.	Paid.	Last Price.	Transactions.
107	Budnick Consols (tin), Penzance	5 1/2	10 1/2	
128	East Tamarhale (copper), St. Agnes	5	8	
512	East Wheel Lestire (copper)	8	21 30	29 1/2
128	East Wheel Rose (silver-lead), Newlyn	5	60	
250	Perran Wheel Lestire, Penzance	14	1	
1100	Perran St. George (copper and tin)	21 1/2	35 40	45
1000	Pollero (tin), St. Agnes	15	23	
250	Garras (lead), near Truro	43	23	
500	Tamarhale (cop.), Illogan & St. Agnes	60	47 1/2	
2048	West Wheel Rose (lead), Newlyn	2 1/2	3	
100	Wheel Friendly (tin), St. Agnes	70	65	
4000	Wheel Golden (lead), Penzance	2	5 1/2	
216	Wheel Henry (copper), Koa, near Truro	25	8 1/2	
128	Wheel Vlow, Penzance	3	5	

Shares.	GWENAP DISTRICT.	Paid.	Last Price.	Transactions.
1056	Carvanall (copper), Gwenap	2 1/2	8	
128	Comfort (copper), Gwenap	10	105	
56	Great Consols (copper), Gwenap	10 1/2	250	
252	Lanarth Consols (copper), Gwenap	10	8	6
96	Trevellick (copper), Gwenap	10	220	225
120	Trevellick (copper), Gwenap	5	18	
120	Trevellick and Barriar (copper)	130	270	275
200	United Mines (copper), Gwenap	300	130	
120	West Trevellick (copper), Gwenap	15	20	
3735	West Wheel Jewel (tin and copper)	12	2	
512	Wheel Trevellick (copper), Gwenap	6 1/2	19 1/2	20

Shares.	REDUTH DISTRICT.	Paid.	Last Price.	Transactions.
1000	East Buller (copper), near Reduth	2	6 1/2	7
128	East Carn Brea (copper), Reduth	4	3	
250	East Soton and Silver Lead, Reduth	4	20	20
250	East Tolgus (copper), Reduth	4	20	
250	Graham and St. Aubyn (copper)	80	38	37 1/2 40
1000	North Buller (copper), Reduth	3	11 1/2	14 1/2
1200	North Wh. Buller, or St. South Tolgus	5	7	
250	North Trevellick (tin and copper), Reduth	1	2 1/2	
250	North Tolgus (copper), Reduth	5	15	20
250	South Tolgus (copper), Reduth	16	150 160	155
3000	Trevellick Consols (copper), Reduth	6	2 1/2	
128	West Buller (copper), Reduth	5	750	
250	Wheel Del Rey (copper), Claceve	5	5	
128	Wheel Elizabeth (copper), Reduth	12	32 1/2	

Shares.	REDUTH DISTRICT.	Paid.	Last Price.	Transactions.
990	Wheel Mary (copper), Reduth	14 1/2	7 1/2	
128	Wheel Penny (copper), Reduth	19	38 39	
128	Wheel Union (copper), Reduth	40	20	27 1/2
512	Wheel Selena (copper), Reduth	1	1 1/2	

Shares.	ILLOGAN DISTRICT.	Paid.	Last Price.	Transactions.
1000	Carn Brea (copper and tin), Illogan	15	130	
250	East Kieve (copper and tin), Illogan	15 1/2	10 1/2	10 1/2
128	East Pool (tin and copper), Pool, Illogan	24 1/2	150	153
94	East Wheel Croft (copper), Illogan	125	250	
250	East Wheel Frances (copper), Illogan	2 1/2	4 1/2	
6000	North Wheel Bassett (copper and tin)	1	15 20	
100	North Pool (copper and tin), Pool	45	430	
2000	South Carn Brea (copper), Illogan	10	1	
1100	South Dolcoath (copper), Illogan	6	1	
250	South Wheel Bassett (copper), Illogan	10 1/2	315 320	325 30 50
124	South Wheel Frances (copper), Illogan	7 1/2	620	
1000	Tincroft (copper and tin), near Pool	7	11 1/2 12 1/2	11 1/2 12
940	West Tolgus (copper), Illogan	13 1/2	7 1/2 8 1/2	
512	West Wheel Frances (copper), Illogan	9 1/2	14 1/2	
500	West Wheel Towan (copper), Illogan	9	12 1/2	
1000	Wheel Agar (copper), Illogan	6	5 1/2	
1000	Wheel Uny (lead and copper)	2	5	5 1/2

Shares.	CAMBORNE DISTRICT.	Paid.	Last Price.	Transactions.
1000	Camborne Consols (copper), Camborne	7	7 1/2	
250	Coudurrow (copper and tin), Camborne	20	112	
1000	Copple Bottom (copper), Crowan	10 1/2	4	
250	Crane and Belajwa (copper), Camborne	8	8 1/2	
180	Dolcoath (copper and tin), Camborne	252	18 20	
1000	Gustavus Mines (copper), Camborne	5 1/2	6 1/2	6
320	Nansogall (tin and copper), Camborne	1	160	
140	North Roskear (copper), Camborne	10	160	
1000	Pendarves Consols (copper), Camborne	3	6 1/2 7 1/2	6 1/2
1000	Pendarves and St. Aubyn (copper)	5	12	
1000	Stray Park and Camborne Vein (copper)	15	20 1/2	20 20 21
1200	Tolcarne (tin and copper), Camborne	8	5	
200	West Soton (copper), Camborne	65	180	170
2500	Wheel Harriet (copper), Camborne	1	5 1/2	
198	Wheel Soton (tin and copper), Camborne	107	250	
257	Wheel Tryphena (tin and copper)	40	40	

5120	Mill Pool (tin and copper), St. Hilary	1	3 1/2	.....	9	10		
2000	North Levan (tin and copper), St. Just	5	3	.....				
512	North Wheel Vor (tin), Breage, Helston	1	5	.....				
1000	Penzance Consols (tin), Sancerre	1 1/2	3	.....	2			
1000	Prad Consols, Towardack	1	1	.....	1			
500	Providence Mines (tin), Uny Lelant	20 1/2	30	.....				
300	South Speed (copper and tin), Uny Lelant	15	30	.....				
128	Spearhead Consols (tin), St. Just	20	75	.....				
1000	St. Aubyn and Grylls (copper and tin) ..	2 1/2	8 1/2	.....	22			
594	St. Ives Consols (tin), St. Ives	80	80	.....				
250	Spearhead Moor (copper), St. Just	30	40	.....				
1004	Trannack and Bosence, St. Erth	1	13	.....	12			
1004	Trannack United Mines (tin and copper)	1 1/2	4 1/2	.....				
600	Tregardock	1	5	.....				
1000	Trowan Consols (tin), St. Ives	7	27	.....				
2000	Trowan Consols (tin), Helston	7	—	.....				
600	Trowan Consols (tin), Towardack	7	—	.....				
100	Trumpet Consols (tin), near Helston, ..	95	80	90	.....			
1004	Wellington (copper & tin), Perranlithnoe	6 1/2	17	.....	16 1/2	18		
1004	West Alfred Consols	5	10 1/2	11	11 1/2	12 1/2		
1004	West Ding-Dong (tin) ..	1 1/2	1 1/2	.....				
612	West Providence (tin), St. Erth	10	65	67	.....	65	66	
1004	West Wheal Treasury (copper), Gwinnear	8	7 1/2	.....	7 1/2	7 1/2	8	
1004	West Wheal Virgin (tin), Sancerre	1	1	.....				
250	Wheal Albert (copper)	10	23	29	.....			
128	Wheal Ann	4	—	.....				
3072	Wheal Augusta (tin), St. Just	—	3	.....	2 1/2			
120	Wheal Bal (tin), St. Just	10	14	.....				
256	Wheal Carpenter (tin and cop.), Gwinnear	2	4 1/2	.....	5			
258	Wheal Courtenay (copper)	20	23	.....				
1000	Wheal Guskis (tin and copper), St. Hilary	4 1/2	3	.....				
112	Wheal Margaret (tin), Uny Lelant	7 1/2	155	.....	160			
1004	Wheal Neptune (copper), Perranlithnoe	19	3	.....				
1000	Wheal Oak, near Helston	1	2	.....				
128	Wheal Reeth (tin), St. Ives	41	150	.....				
128	Wheal Squire (copper), St. Erth	5	5	.....	5			
1000	Wheal Susan, Breage and Crowan	1	3 1/2	.....				
1004	Wheal Tremayne (tin and cop.), Gwinnear	9 1/2	21 1/2	22	.....	20	21 1/2	22 1/2
1004	Wheal Treloaback, Stythians	5	6	.....	5 1/2	6		
210	Wheal Prospect	4	7	.....				



stances, an inexorable want of caution on the part of those to whom is intrusted the duty of superintendence, and incredible carelessness among those employed in the mines. We are as anxious as our correspondent to witness the good effect of Government inspection, though looking at the number and extent of mines to be surveyed, the appointment of three or four inspectors is not at all calculated to meet the emergency.

We have to apologise to our excellent correspondent, Mr. David Mushet, for again omitting the continuation of his papers on Patent Law Reform, also a letter on the same subject—two papers, by the Baron Von Rathen, on Light and Air for the Miner, and Collisions on Railways—Mr. Mitchell, On the Treatment of Copper Ores—the New Patent Laws of Belgium—Electro-Magnetism as a Motive-Power, and Chemical Induction—Mr. Weston on Atmospheric Railway Propulsion—several papers by Dr. Murray—are unavoidably postponed.

\* \* \* We must impress upon our correspondents, the necessity of invariably furnishing us with their names and addresses—not that their communications should, consequently, be noticed, but as an earnest to us of their good faith.

\* \* \* It is particularly requested that all communications may be addressed—

TO THE EDITOR,

Mining Journal Office,

26, FLEET-STREET, LONDON.

And Post-office orders made payable to Wm. Salmon Mansell, as acting for the proprietors.

## THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, JANUARY 11, 1851.

The MINING JOURNAL is published at about Eleven o'clock on Saturday morning, at the office, 26, Fleet-street, and can be obtained, before Twelve, of all news agents, at the Royal Exchange, and other parts of London.

At the Durham western sessions a question was raised of considerable importance, inasmuch as it in some measure decides the distinction between what is a mine and what is a quarry. It was an appeal by Messrs. CHARLES ATTWOOD and Co. against a rate made by the overseers of the poor of the parish of Stanhope on some ironstone-works, belonging to the former—the question to be settled being principally—were these works mines, or were they quarries? Mr. GREY, for the respondents, contended that the mode of working, and not the material extracted, determined the character of the excavations. The statute did not exempt minerals, but mines; and if every substance which is raised from beneath the surface be considered as the produce of a mine, the exception would equally extend to gravel, marl, stone, and the like. His definition of the terms "mine" and "quarry" was this—that if the place of operation be fully, or only partially, exposed to the light of day, it must be a quarry. If, on the other hand, it was only approached by levels or shafts, and the works carried on by subterranean works, where the light of day cannot reach, it must be considered a mine. Witnesses were called to prove making the rate on four ironstone quarries, which were entirely open, and no candles were used in excavating the stone; there were no shafts or steam-engines employed. This was the first time of rating these works; lead mines had not been known to have been rated. Mr. OTTER, for the appellants, contended that the statute of ELIZABETH having made the land rateable, a rate on the quarry would make it double. Where the stratum outcropped, it was necessary to carry on open works for a considerable distance, until they opened levels, and a regular lead mine, to the ore of which the ironstone was a matrix. He urged that, although at present the workings were open to the day, they must be considered as mines. The decision of the Bench was postponed, and the next day the chairman stated that, being perfectly exposed, they must be considered as quarries, and rated accordingly; and on application being made by appellants' attorney for a case to the Court of Queen's Bench, the chairman said the opinion of the Bench was so decided that it could not be granted. However hard this may seem to parties getting metallic ore by open cutting, it is at present understood as the law. Mr. COLLIER, in his *Law of Mines*, states that the 43d Eliz., cap. 2, sec. 1, in which poor rates originated, declares all occupiers of coal mines rateable to the poor, and it was early decided that the express mention of coal mines exempted all others. The distinction between a mine and a quarry being founded not on the difference of the substance raised, but of the mode of obtaining it—workings open and visible from the surface being deemed quarries; while the sinking of shafts, driving of levels, and generally digging underground, appear the chief features of mining.

In another column will be found our annual report of the "Accidents in Mines" during the year 1850. From this it will be seen that since the passing of the Government Act for the inspection of collieries, that the deaths by explosion have amounted to 110, and the injuries from the same cause 130; falling of roof, deaths 60, injuries 15; falling in shaft, deaths 45, injuries 2; machinery, deaths 12, injuries 18; accidents not specified, deaths 51, injuries 16—making the number of deaths 278, injuries 181: total of deaths and injuries 459. On the appointment of the inspectors some few weeks since, in the Journal of the 7th of December we ventured to throw out some suggestions as to the manner in which the onerous and responsible duties entrusted to these gentlemen should be performed. At the same time we hailed their appointment with satisfaction, and as a step in the right direction, we stated that the number was too few, nor could they efficiently act without a competent and well-organised staff of sub-inspectors, aided by the assistance of the coalowners and their agents. However well disposed, as we believe the inspectors may be, to carry out the provisions of the bill, and endeavour to save that frightful waste of human life, which we regret to say, is now almost of daily occurrence, we repeat that it is a perfect impossibility to imagine four individuals, let their talents be ever so super-eminent, to supervise all the collieries in the different coal-fields and various formations of Great Britain. Since their appointment they have, we believe, been actively engaged in their several districts; no coroner's inquest has taken place but they have attended, or any accident occurred but they have strictly investigated. This is well enough, and though it is right and proper, that when any disaster has happened, the fullest information should be laid before the public, so that precautions should be taken to prevent the recurrence of such catastrophes, yet we think it would be much better if they could, by a timely inspection, be prevented.

We are aware that, in numberless cases, the accidents arise, in many instances, from the temerity, obstinacy, ignorance, and carelessness of the operatives themselves. If a rigid system of inspection with them was exercised—not only by the overlookers, but as well as by the sub-inspectors, who, in their weekly report, should state what derelictions they discovered on the part of the owner, overlooker, and workmen, to the head inspectors, who should have a power to punish either by fines or otherwise—we do not hesitate to say but that much which is now justly complained of would be, if not virtually remedied, at least considerably ameliorated.

We are aware that many will raise objections to this on the score of its being inquisitorial and repugnant to the feelings and habits of Englishmen; and we do not disguise from ourselves the unwelcome fact that, in carrying efficiently out such a system of inspection, considerable opposition would have to be encountered, and, in many instances, innumerable and vexatious obstacles would be thrown in the way by some of the colliery proprietors and their subalterns. A determined will, combined with energy and perseverance, would, however, soon overcome any difficulties that might arise; while the means to be attained—no less than the preservation of human life, and the prevention of pauperism—would carry so much weight with it that, when sufficiently known, public opinion would side with the inspectors, and the barriers opposed by avarice, ignorance, temerity, or recklessness, would be thrown down, never again to be raised. The system of inspection has been tried in France, Belgium, Prussia, and Saxony—in fact, in a more or less modified degree, in every country on the continent of Europe. No complaints have ever been raised by the proprietors or labourers; and mines which would here have been long since abandoned, there have been working for several years. It is a lamentable fact that, while we are the most extensive mineral country in the world, our agents and miners, who are justly acknowledged to be the

most practical men, are known to be grossly deficient in all matters connected with the theory of their profession. Witness the blunders and errors for want of a little scientific knowledge they are daily committing, involving, in many instances, a wanton expenditure of life and capital.

The inspectors are men of such standing that, by their attainments, they can and should communicate their knowledge to those whom they have to superintend; and by an application of some of the slightest rules of chemistry and mechanics, much might be done to instruct the working miner, so as to preserve the property and lives entrusted to his care. We had hoped to have seen other appointments made; the present number is insufficient. Parliament will shortly open; and we trust that some of the Members connected with the coal districts will demand an explanation from Sir G. GREY as to what his future intentions are with regard to the energetic development of the Act so hurriedly passed at the close of last session. We have devoted for several years a great portion of our time to this question; and we shall not rest until we see some effectual means devised to protect the miner, not only from the avarice of his employer, but the consequences of his own temerity, though we are not so Quixotic as to imagine that any means, however well ordered, could totally prevent the occurrence of calamity.

The first of the series of the quarterly meetings of the ironmasters was held in Wolverhampton, on Wednesday—the attendance not being so numerous as usual, more particularly on the part of dealers. The state of trade taken generally is by no means uniform; some houses report that they are full of orders, sufficient for several months to come, whilst others present a much more gloomy picture, and contend there is no improvement since last quarter-day. The majority of manufacturers, however, particularly edge-tool makers, are very busy, which fact, coupled with other circumstances, will tend to keep prices firm, if they do not advance, notwithstanding the determination come to not to increase present prices over the Oct. rates. It was very generally admitted that the iron market was improved in present position and in its future prospects, but the principal firms of the district, the producers of the best iron, determined to stand by the price as fixed at the last meeting. The symptoms of improvement in the future trade are numerous, large orders have been pouring in from Russia, America, and the Roman States, chiefly rails; and to show the activity in this branch of the trade, it is stated that a larger amount of orders have been received for rails within the past three months than for the previous two years. The demand for the home market has also increased, and as the stocks on hand in South Staffordshire are unprecedentedly low, there is scarce sufficient supply to meet the demand. These circumstances, in the views of many, are sufficient to justify an increase in price; but as there may in all this be some unsound speculation in this general improvement, it is considered the more prudent course to remain as they are, as much punishment has been suffered on former occasions by lending a hand unknowingly in supporting fictitious business, and unexpected improvements, which have not been founded on firm bases. The demand for iron is, at all events, greater than for some months past, but whether from legitimate business or from speculative proceeding, time alone will show. The orders in the hands of some makers cannot certainly be executed before March, or even April. The foreign trade is brisk. The large houses will retain the terms of last quarter; but the smaller masters, who are not bound by the rules of the confederation, and have been continually underselling the former from 5s. to 10s. per ton, may be expected to raise their demands to that extent, bringing their prices to range with the more important firms. The trade of South Staffordshire in every department, upon the whole, gives an encouraging picture for the new year, and the quietness and content which characterises the present industrial population is highly gratifying. Some remarks on the Scotch pig-iron trade will be found in another column.

We have been favoured by Mr. CUELL with a mass of statistical information in connection with the dividend-paying mines of Cornwall and Devon, which are certainly the most elaborate and complete of any yet extant. At a glance the shareholder, or party interested, may see the number of shares into which a mine is divided, the capital employed, with amount of dividends paid, the market value of the share at the time of publication, where situated, offices, names of purser and secretary, mineral raised, with every description of information which it can be deemed satisfactory, or necessary, for creating that confidence in mining pursuits which, until within the past few years, was certainly not a prominent feature therein. It is from the gradual progression from a system of mysterious secrecy in the carrying on a mine to one of a more open and confiding character, within a not very lengthened period, that we may trace the emergence of this staple commercial enterprise from a state of apathy and listlessness, to become one creating as lively a sense of speculative excitement, and involving proportionately as large an amount of capital, as other industrial interests of the kingdom. One of the most satisfactory points connected with mining is for a shareholder at all times to know the nature and extent of his liability; and to secure a continuance of the confidence already displayed by capitalists and the public, it is necessary that pursers, agents, and others concerned, should still continue to pursue that course of giving correct information and candid explanation which has already gained for the interest in which they hold a stake so great and so steady an increase of patronage and support. It will be in the recollection of our readers that it was on the crash and downfall of confidence in railways in 1847, brought about by those bubbles of fraud, chicanery, and concealment, which at length burst, spreading desolation and ruin, that mining began to assume that improved position which it has since established itself in; and we sincerely hope and trust that no conduct on the part of those having the management of mines will tend to disguise the aspect of any adventure, and thus tend to a retrograde movement in the general interest. Full and fair exposition of the really present state and future prospects of a mine will, in the end, be found the most advantageous to "One and All."

In our number of the 14th Dec., we promised to revert to the present effect of the WINDING-UP ACTS, as subject to the arbitrary discretion of the court; and we shall now in part discuss the question whether certain recent decisions are consistent with the intentions of the Legislature in passing the statutes in question.

Of the several Winding-up Acts—including that specially applicable to railway projects, which appears to have been treated as absorbed in, or virtually repealed by, the more recent statutes of 1848 and 1849—the sole object, as we collected in the discussion on their respective bills, was to give a comparatively prompt and efficacious means, at a reduced expense, in lieu of the protracted and costly remedy of proceedings by bills in Equity, for the dissolution of partnerships, in the nature of joint-stock companies, and the winding-up of their affairs. Time out of mind it has been an admitted fact that for such a purpose, unless some men of long purses and obstinate minds, determined to carry their point at all hazards, there was a denial of justice in the conclusion of the existence of such companies, whenever the governing body was interested in refusing a fair and final adjustment of affairs. And why? Simply on account of the ruinous expenses and delay of a Chancery suit. To remedy this evil, and to take a step in advance towards legal reform, the measures in question were successively passed.

Again, the genius of reform was roused; another grievous instance of obstruction to justice, by reason of the costliness and harassing procrastination of suits, in the administration of wills and intestacies, and other proceedings, which ought to be as matters of course, was brought before Parliament; and a strenuous effort was again made to enforce justice where justice had been denied. The self-inflicted discipline of the ex-Chancellor, whereby the Court of Chancery, in its general orders, professed to meet the wishes of our Solons, and effect the necessary ameliorations, alone warded off the legislative blow.

Hosts of applicants for the benefits of these provisions, legislative and curial—if it can be called a benefit to submit one's right to the consideration of Chancery officials and the machinery of the court—have proved that there are many cases in which the parties claim, and are entitled to, redress, where they could not otherwise obtain it without ruinous expenditure, and positive loss in costs, as between solicitor and client. The court and officers are consequently deluged with business, that disturbs the calm

routine of our well-paid functionaries—*ergo*, the act and general order are intolerable; they are voted a bore, and must be got rid of. Hear VICE-CHANCELLOR K. BRUCE, in his bye-the-way gossip, which lawyers call *obiter dicta*, upon a motion in the matter of the Royal Bank of Australia, as reported in the public journals of the 30th of last Nov.:—"I have heard it said that the statutes designated Winding-up Acts are so excellent in their construction, that they are to form the model for future legislation, and to be the form for the administration of the estates of all dead men. If they are to be so, my own view is, that they will form an additional reason for wishing to continue in life. My conviction is, that those Acts do far more harm than good."

So then, forsooth, because there are men who are so rash or stupid as to prefer giving trouble to those who are well paid for their work, by adopting a comparatively—for everything in and of the Court is no more than comparatively efficient—efficient and cheap remedy, where otherwise they would rather be robbed than become the suitors of so coy and costly a mistress as the Lady Patroness of Lincoln's Inn,—*argal*, the new law and regulations are bad. Then the County Courts law is bad. Oh, no! There we have low salaries and hard-working men, glad to have the chance of doing their work. But what in truth does all this disgust of our Chancery officials prove? That the court is the receptacle of untold and incalculable nuisance, where poor men's hopes and just men's rights lie putrid beneath the buoyant gasses of wealth and oppression; and that it more than needs the hand of the Yankee Hercules, who, we trust, has not come here in vain, to do the Augean work of legal reform.

And still the burden of the innovation does not, in our estimation, consist in the administration of the law as it is, and as it has been intended; but in the misinterpretation of it by the judicial and ministerial officers of the court, and in the omission of the court to provide sufficiently for the increasing necessities of the period.

This is a theme in which we are deeply interested, as devoted to industrial objects, in which it is of the highest importance to have the laws relating to public partnerships well defined, and the remedies against wrongs within the reach of all aggrieved. Thus alone will *bona fide* enterprise prosper, whilst the mere schemers will be precluded or deterred from provoking just responsibilities to the public. If, during the mania of past speculation, it were available to present the certain consequence of dishonest projects, as a reflection for the "Jeannesses" and other professional committee-men, they would have turned from the mirror, doffed the garb of capitalists, and spared many industrious families from the wide-spread ruin that periodically degrade our internal commerce. What! is VICE-CHANCELLOR BRUCE shocked at the ruin of two or three hundred provisional committee-men? Let him descend to our streets, let him look to the Bankrupt and Insolvent Courts, and ask our shopkeepers and farmers how many thousands of families have been ruined, or brought to the brink of ruin, by those very men whom he so commiserates. Let him look to the invitations and private compacts, and fraudulent objects of their association. He will then learn how better to estimate them, and that their motive in risking the ruin now overtaking some of them was the base selfishness of aggrandisement at the cost of their dupes, the hardworking, middle, and inferior classes.

The adjourned special meeting of the COMPANY OF COPPER MINERS IN ENGLAND is to be held on Tuesday next, the 14th inst. It may be in the recollection of our readers that the first meeting was held on the 7th of December; this meeting, after a desultory conversation, was adjourned to the 2d inst.; on that day it was resolved it should be further deferred, in order that some information might be obtained as to the course the debenture-holders were determined to pursue in the present crisis of the company's affairs. Their meeting was held on Tuesday last, but being private, the results have not yet transpired; but it is to be hoped that they will adopt more lenient views than those they have hitherto broached, so that the different interests may be amalgamated, with a view to the resuscitation of the company. Two futile attempts have been made to dispose of the property by public auction, the first in July, 1849, and subsequently at the same period in 1850; during the last few weeks advertisements have appeared in the different public journals, offering the property for sale by private contract; all efforts to obtain a purchaser has as yet been vain, and it would seem that the natural course would be, that the property should revert to the old proprietary. It is useless to recur to the causes which have placed the company in their present unfortunate position. The Shareholders' Committee have been labouring diligently and energetically to remedy the evils with which they were beset. A bill was carefully prepared by them to amend the constitution of the company, and preserve the charter; after having been read twice in the House of Commons, the preamble not being satisfactorily proved, it was thrown out by the committee; and, according to parliamentary usage, no reasons were assigned for the determination which had influenced the Members to take this step. Another bill has been prepared, and duly deposited in the proper office, and we sincerely hope it will meet with a better fate than its predecessor. The two meetings that have been held have been but thinly attended, and we trust on Tuesday next such a full attendance will be found as the importance of the case demands. We have heard that hitherto one of the principal causes which has retarded the settlement of affairs, has been the obstinate determination of the debenture-holders in no way to sacrifice their own interest to the general welfare: the Bank, we are informed, would gladly compromise with the company. To effect this, in their present insolvent state as a body, is not in the power of the shareholders, and it can only be effectually carried out with a complete union with the preference stock-holders and the debenture-holders: the charter of the company, we should imagine, is too valuable, either to be idly thrown away, or forfeited by the petty differences of those who have the greatest stake in preserving it. But a short period since, the company were threatened with litigation from some of their own body; through the conciliatory spirit of the Shareholders' Committee, this has been adjusted, and the difficulty overcome, but numberless obstacles are still to be encountered, and these, as we before observed, can only be terminated by the general union of all. What we should advise is, that each party, while looking after their own peculiar interests, should not lose sight of the great fact, that by too eagerly grasping at the shadow they may lose the substance. Experience has shown that, either from the magnitude of the property, the capital required to work it, or the tenure on which it is held, it is not marketable; and, if realised, must be at a great sacrifice, which will leave little or nothing for those who have embarked their money as shareholders, or taken debentures on the faith of a company which has been several times threatened with bankruptcy. At this juncture but one course remains, which, in our humble opinion, is an equitable amalgamation of all interests, and the goal to be attained, the restoration of the company, if not to its pristine state, at least to that respectable position which its antiquity and importance merits.

### New Patents.

#### LIST OF PATENTS GRANTED DURING THE PAST WEEK.

- J. Tatham, and D. Cheetham, of Rochdale, Lancashire, machine makers, for certain improvements in steam-engines, in apparatus for generating and indicating the pressure of steam, and for filtering water to be applied to boilers, also improvements applicable to steam-vessels or ships.
- J. Horton, of Etna Works, Smethwick, Stafford, steam-engine, boiler, and gasholder manufacturer, trading under the firm or style of "Joshua and William Horton," for improvements in the construction of gasholders.
- J. Corry, of Belfast, Ireland, damask manufacturer, for improvements in machinery, or apparatus for weaving figured fabrics, which machinery or apparatus is also applicable to other purposes for which Jacquard apparatus is or may be employed.
- B. Cook, of Birmingham, manufacturer, for a certain improvement, or certain improvements in the manufacture of metallic tubes.
- J. Percy, of Birmingham, doctor of medicine, and H. Wiggin, of the same place, manufacturer, for a new metallic alloy, or new metallic alloys.
- T. Lawes, of 32, City-road, Middlesex, for improvements in generating and applying steam for certain purposes.
- J. H. Brown, of Fir-cottage, Putney, Surrey, gentleman, for certain improvements in the manufacture of wafers.

#### DESIGNS FOR ARTICLES OF UTILITY REGISTERED.

- G. Holcroft, Manchester, steam-boiler.
- W. H. Hopkins, Brix, Oxford, Brix-Hill-Side, plough.
- J. Crosswell, Birmingham, door fitting.
- H. Weatherley, Theobald's-road, machine for cleaning currants.
- L. Braun, Wood street, Chislehurst, cap.
- J. H. Quincey, Hatton Garden, parts of a coal box.
- A. Derry, Grosvenor-street, Bond-street, parts of stags.
- G. Bauchini, Broadwall, Blackfriars, window-cleaning guard.
- P. Rigby, Liverpool, spirit bottle.
- J. Chapman, Birmingham, ventilating mattress or cushion.
- J. Capper and Son, Gracechurch-street, towelling.—*Mechanics' Magazine.*



## TABULAR AND STATISTICAL MATTER, WITH RETURNS OF METAL, ON DIVIDEND-PAYING MINES, FOR THE PAST YEAR.—By WILLIAM HENRY CUELL, ESQ.

## DEVONSHIRE AND CORNISH MINES.

Nos. Shares.	Amount Paid.	Name of Mine.	Price.	Dividend per sh.	Total Amount of Div.	Metal.	Parish.	Purser and Sec.	Address.	System.	Dividend Payable.	Copper.	Tin.	Lead.	Total amount of money.	Lease granted.	Dues.
£	£	£	£	£	£							Tons	Tons	Tons	£ s. d.	In Yrs.	
5120	3	Alfred	18	2	2048	copper	Phillack	H. Noel	Hayle	Cost-book	two months	1695	—	—	10,916 0 0	1850	1-18 & 1-30
4300	2	Bedford United	6	1	4000	copper	Tavistock	G. Kleckhoefer	50, Threadneedle-street	ditto	ditto	1496	—	—	9,804 1 0	1841	1-15
100	182	Botallack	200	10	10000	copper and tin	St. Just	S. H. James	St. Just	ditto	ditto	147	229	—	11,955 17 8	—	—
1624	9	Balloswidden	104	2	3451	tin	St. Just	R. V. Davey	Penzance	ditto	ditto	—	—	—	—	—	—
1000	15	Carn Brea	120	13	13000	copper and tin	Redruth	R. H. Pike	Camborne	ditto	two months	9318	—	—	55,006 16 0	—	—
128	65	Comfort	100	6	768	copper	Guwenap	S. R. Davey	Redruth	ditto	ditto	2243	—	—	4,649 12 0	—	—
256	20	Condurow	112	5	1280	copper and tin	Camborne	N. Vivian	Camborne	ditto	ditto	1621	88	—	11,424 0 0	1845	1-30
1924	1	Devon Great Consols	270	40	40960	copper	Tavistock	J. Allen	Barge-yard, Bucklersbury	Joint-stock	ditto	17083	—	—	109989 12 0	1844	1-12
128	50	East Wheal Rose	600	125	16000	lead	Newlyn	E. Michell	Fruro	Cost-book	ditto	—	—	3907	56,755 1 8	—	—
494	40	Fewey Consols	30	4	1976	copper	Tywardreath	W. Davis	St. Blazey	ditto	ditto	6169	—	—	37,335 12 0	—	—
119	1000	Great Consols	250	10	960	copper	Guwenap	Com. of Man.	Guwenap	ditto	ditto	7592	—	—	40,159 16 0	—	—
160	—	Great Work	—	35	4165	tin	Breaage	—	Helston	ditto	three months	20	261	—	13,413 0 0	—	—
1000	17	Lewis	175	25	4000	copper and tin	St. Just	John Rodda	Penzance	ditto	two months	2668	—	—	14,156 0 0	1839	21
612	5	Mary Ann	67	11	5632	lead	Menheniott	P. Climo, jun.	Liskeard	ditto	three months	—	346	1186	16,555 4 4	—	—
100	45	North Pool	420	142	14250	copper and tin	Pool	H. Borrow	Fruro	ditto	two months	7248	—	—	25,610 17 0	1845	1-15
140	10	North Tazear	160	20	2800	copper	Camborne	Hutchinson	Camborne	ditto	ditto	5077	—	—	27,950 0 0	—	—
6000	18	North Tazear	18	—	3000	copper and tin	Illogan	R. Lyle	10, Old Jewry-chambers	ditto	ditto	—	—	—	—	—	—
1024	12	Penzance Consols	3	—	128	tin	Sancreed	T. Carthew	St. Just, Penzance	ditto	—	—	37	—	1,836 0 0	—	1-20
112	29	Providence Mines	30	23	2576	tin	Uny Lelant	S. Higgs	Penzance	ditto	—	—	241	—	10,767 0 0	—	—
128	55	Par Consols	650	100	12800	copper	St. Blazey	W. Davis	St. Blazey	ditto	four months	7152	—	—	44,093 6 0	—	—
1000	15	Stray Park, &c.	21	3	3050	copper	Camborne	W. Vawdrey	Camborne	ditto	two months	3047	—	—	13,612 16 0	1844	1-15
124	75	South France	610	84	10478	copper	Illogan	Com. of Man.	Redruth	ditto	ditto	2678	—	—	21,388 16 6	—	—
256	10	South Tazear	160	14	3712	copper	Redruth	T. Michell	Redruth	ditto	ditto	1833	—	—	12,535 17 6	—	—
256	10	South Tazear	350	55	14080	copper	Illogan	W. Richards	Redruth	ditto	ditto	4409	—	—	30,826 7 0	1850	1-15
128	8	South Tazear	205	3	384	copper	St. Cleer	T. Killo	Liskeard	ditto	ditto	2765	—	—	21,156 8 6	1846	1-18
1024	9	Tromayne	22	3	3328	tin and copper	Gwinear	R. R. Michell	Marazion	ditto	ditto	834	224	—	14,356 0 0	—	1-20
260	3	Trelawny	50	22	5720	lead	Menheniott	J. Philip	Liskeard	ditto	three months	—	1497	—	23,195 16 0	1844	1-15
120	130	Treviskey and Barrier	275	73	8760	copper	Guwenap	Williams and Son	Redruth	ditto	two months	2884	—	—	20,628 16 6	—	—
120	5	Trethellan	18	5	600	copper	Guwenap	W. Richards	Redruth	ditto	ditto	1045	—	—	3,013 5 0	—	—
256	14	Trethane	15	3	896	lead	Menheniott	J. Philip	Liskeard	ditto	ditto	—	429	—	7,697 4 0	1846	1-15
6000	30	Tincroft	140	5	1000	copper and tin	Guwenap	P. Stainsby	Salvador House, London	Cost-book	two months	7012	329	—	38,972 1 0	—	—
256	29	West Caradon	105	7	1920	copper	St. Cleer	E. A. Crouch	Liskeard	ditto	ditto	4049	—	—	43,197 10 0	—	—
128	10	West Buller	730	102	13120	copper	Redruth	S. and R. Davey	Redruth	ditto	ditto	3345	—	—	32,649 13 3	1840	1-15
198	107	Wheal Seton	250	30	5940	copper	Camborne	T. H. Tilley	Redruth	ditto	ditto	6009	—	—	23,449 9 6	1849	1-16
120	41	Wheal Reeth	150	25	3000	tin	St. Ives	R. Pearce	Penzance	ditto	ditto	—	355	—	14,929 0 0	—	—
1024	6	Wellington	18	1	1024	copper and tin	Perranuthnoe	R. R. Michell	Marazion	ditto	ditto	1034	—	—	6,177 0 0	1845	1-18
128	30	Wheal Spear	75	10	1376	tin	St. Just	R. Pearce	Penzance	ditto	three months	—	312	—	13,869 2 2	1841	1-24
112	70	Wheal Margaret	160	28	3136	tin	Uny Lelant	W. S. Arthur	Penzance	ditto	two months	—	98	—	4,828 16 1	—	—
512	10	West Providence	65	2	1024	tin	St. Eth	R. R. Michell	Marazion	ditto	—	—	—	—	17,98 17 6	—	—
128	120	Wheal Friendship	120	24	2880	copper	Duron	J. Taylor	Queen-street-place, London	ditto	—	2503	—	—	17,98 17 6	—	—
430	—	Wheal Level	12	2	860	tin	St. Ives	W. Carne	Falmouth	ditto	three months	—	252	—	12,985 2 2	—	—
100	70	Wheal Friendly	65	5	509	tin	St. Ann's	H. Borrow	—	ditto	—	—	—	—	—	—	—
94	80	St. Ives Consols	80	3	282	tin	St. Ives	J. Millet	Penzance	ditto	—	—	314	—	12,975 0 0	—	—
															122,691	3096	7019
															1039715	19 4	

## WELSH MINES.

64	—	Deep Level and Halkin ..	—	60	3840	lead	—	—	—	—	—	—	—	—	—	—	—	—	—
100	75	Lisburne .....	700	105	10500	lead	Cardigan .....	J. Taylor and Son	Queen-street-place .....	Cost-book	—	—	—	—	2625	29,173	0	0	—
100	5	Goginan .....	200	25	2500	lead	Ditto .....	Ditto	Ditto .....	ditto	—	—	—	—	718	11,568	0	0	40
128	60	Cwmystwith .....	100	5	640	lead	Ditto .....	Ditto	Ditto .....	ditto	—	—	—	—	806	6,483	0	0	21
1000	2½	Bryntail .....	11½	—	250	lead	Montgomery .....	J. H. Smith .....	George-yard .....	ditto	—	—	—	—	116½	1,180	0	0	21
															4065	48,404	0	0	

## IRISH MINES.

Nos. Shares.	Amount Paid.	Name of Mine.	Price.	Dividend per sh.	Total Amount of Div.	Metal.	Parish.	Purser and Sec.	Address.	System.	Dividend Payable.	Copper.	Tin.	Lead.	Total amount of money.	Lease granted.	Dues.
£	£	£	£	£	£							Tons	Tons	Tons	£ s. d.	In Yrs.	
8000	—	Wicklow	—	15 p. et.	3750	copper	Wicklow	W. Cutler	43, Dame-street	Board of direc.	—	—	—	—	—	—	—
4000	1	General Mining Company	4	—	975	copper and lead	Cork and Wicklow	T. Macguire	3, Burgh Quay, Ireland	ditto	—	—	—	—	—	—	—

## FOREIGN MINES.

Nos. Shares.	Amount Paid.	Name of Mine.	Price.	Dividend per sh.	Total Amount of Div.	Metal.	Parish.	Purser and Sec.	Address.	System.	Dividend Payable.	Copper.	Tin.	Lead.	Total amount of money.	Lease granted.	Dues.
£	£	£	£	£	£							Tons	Tons	Tons	£ s. d.	In Yrs.	
12000	40	Cobre	34	7	84,000	copper	Cuba	W. Luckie	36, Austinfriars	Board of direc.	—	14811	—	—	216,897 16 0	—	—
11000	15	John del Rey	16	3	33,000	gold	Brazil	W. Routh	3, Tolkenhouse-yard	ditto	—	—	—	—	—	—	—
43174	28	United Mexican	6	—	16,690	silver	Mexico	J. Mather	3, Finsbury-crescent	ditto	—	—	—	—	—	—	—
2000	—	General Mining Assn.	—	—	10,000	—	Nova Scotia	T. B. Frood	32, Old Broad-street	ditto	—	—	—	—	—	—	—
10000	14	Coplapo	5	8s.	4,000	copper, &c.	Chili	F. Grellett	26, Austinfriars	ditto	—	875	—	—	25,592 0 0	—	—
—	—	Cuba	—	—	—	copper	Cuba	—	—	ditto	—	3844	—	—	40,709 2 0	—	—
7000	10	Santiago	7	—	—	copper	Cuba	W. Dockar	38, Broad-street-buildings	ditto	—	1119	—	—	16,177 1 0	—	—
															20649	299,375 19 0	

## A Compendium of British Mining.

By J. Y. WATSON, ESQ., F.G.S.

## No. II.—THE NATURE OF LODES.—(Continued).

The most regular tin and copper lodes are very complex in their composition; quartz generally prevails in the matrix, but is always more or less blended with a substance similar to the adjoining rock—indeed, the latter often occurs in distinct forms, as nodules, angular pieces, and even masses of considerable size, which are independent of the main rock, being completely enveloped in the quartzose part of the lode. These are of such common occurrence, as to be named by the miners *horses of killas*. Sometimes the schist so abounds in the lode, that the quartzose part altogether disappears, or is only continued in minute strings; in this case the lode is said to have dwindled away, or to have been *wringed out*. It also frequently happens, that both these principal parts (the rock and the quartz) are intimately united, producing a siliceous layer of rock, which is still metalliferous, and is commonly called *capel*—hence the courses of schorl rock, porphyry, and some anomalous rocks, which have been called by the miners *elvan*, have been properly considered by them to be analogous to lodes; for they are, in fact, veins on a large scale; and, from the great width of many of them, they are termed channels, or courses; they are generally composed of hornstone, quartz, and felspar, having the appearance of hornstone porphyry. Other substances, however, are called *elvan* by the miners. Thus, a stone composed of very compact hornblende and chlorite, is called *blue elvan* in Wheal Ann; a mixture of hard hornblende and quartz has the same name at Botallack; a compound of felspar and hornblende is *elvan* at Gwallior, and is as soft as the neighbouring country; a mixture of hornstone, quartz, schorl, and chlorite, forms the *black elvan* of Chacewater; and the fine-grained granite is the *elvan* of Rosewall Hill. Hardness is not an essential quality of *elvan*. The *elvan* courses vary in width from one to 60 fms., or 360 ft. Their direction is generally a little north of east and south of west; and they almost always underlay towards the north—perhaps, on an average, a foot to every foot in depth, or at an angle of 45°. The extent of their length has never been ascertained, although one of them has been traced five miles.

"By a true vein (Mr. Carne says), I understand the mineral contents of a vertical or inclined fissure nearly straight, and of indefinite length and depth. Their contents are generally, but not always, different from the strata, or the rocks, which the vein intersects. True veins have usually regular walls,\* and sometimes a thin layer of clay, between the wall and the vein. Small branches are also frequently found to diverge from them on both sides. Contemporaneous veins have been usually distinguished from true veins by their shortness, crookedness, and irregularity of size, as well as by the similarity of the constituent parts of the substances which they contain to those of the adjoining rocks, with which they are generally so closely connected as to appear a part of the same mass. Two other marks, more distinctive, must be added. When these veins meet each other in a cross direction, they do not exhibit the heaves or interruptions of true veins, but usually unite. In a multitude of contemporaneous veins, some may appear to be heaved; but the apparent heave seldom affects more than one vein—and it is in general, easy to perceive that what appear to be separate parts of the same vein, are different veins, which terminate at or near the cross vein. When they meet with true veins, they are always traversed by them." Tin lodes are, in general, richer or poorer in the *elvan* than in the adjoining rocks, in proportion to the hardness or softness of the *elvan*. A very soft, or very hard gossan (earth-brown iron ore), is equally thought less favourable than if its consistency be moderately firm; and a very dark colour is also discouraging. The copper gossans are generally softer, paler, and less quartzose, or rather, perhaps, the quartz in them is often friable; and they are more vesicular than tin gossans.

In granite, the lodes, which are chiefly productive of tin ore, are, for the most part, composed of a pale greenish felspar, of a confused crystalline structure; but seldom containing distinct crystals. Through this substance the tin ore is interspersed in form of crystalline granules, seldom so large as a pea, but generally as small as sand.

The lodes which yield copper ore in granite almost always contain gossan near the surface; and this usually continues to somewhat greater depths than it does in slate—as at Tresavean, Ting Tang, Dolcoath, &c.

\* By this term is meant, that the rock of the country stands against the vein, on each side, as a wall, without being intermixed, or forming one body with it.

in Cornwall. When the lodes are very granitic, or when they contain much of the schorlaceous quartz, they are seldom productive—indeed, copper ores are rarely found embedded in schorl. The lodes which yield copper ores in slate contain large quantities of gossan of a pale hue, soft, and full of soft cavities. In them, also, tin ore frequently occurs in small quantities, and blende is very plentiful; but iron pyrites (mundic) is almost constantly present. These earthy minerals are mostly quartz, mixed with quantities of felspar, clay, or flookan; near the surface these are spotted with earthy black copper ore, and at length by copper pyrites. In many places, and more especially in the slaty rocks in the neighbourhood of the fossiliferous beds in the eastern districts of Cornwall, some portions of the lodes, when large, consist almost wholly of a very white crystalline quartz, abounding in vughs, or cavities, lined with crystals of the same, and enclose innumerable disjointed pieces of slate. The cavities lined with crystals, and the included spots of slate, are most unequivocal signs of poverty in those parts of the lodes where they occur. There are also certain minerals which are seldom found in the richer parts of lodes; in those which yield copper ore, chlorite (provincially called *peach*) is one of the most conspicuous. The occurrence of tin ore in the deeper parts of lodes which have previously produced copper ore only, is accounted a very unfavourable indication. Ores of a certain character produce the same metal; and the miner, from experience, can immediately say which ore contains copper, which tin, and which lead.

It is generally, if not invariably, the case that a peculiarly favourable matrix for copper ore is found at the juncture of killas and granite, and the richest and most numerous veins are generally discovered in killas (clay-slate) at no great distance from the granite, and are seldom sought after anywhere else by cautious miners. The pale blue killas generally accompanies a rich vein of copper, and it is the easiest to work on, in sinking shafts and pursuing discoveries. The lodes vary in width from 1 in. to 30 ft., but the most general in tin and copper veins in Cornwall is from 1 ft. to 3 ft., and in the thinner veins the ore is less mixed with other substances. A lode composed of beautiful spar, yellow ore,



## Original Correspondence.

## WASTE GASES FROM THE BLAST-FURNACE.

SIR,—I feel called on to state, with reference to a communication you have copied into your paper, from the *Journal of the Franklin Institute*, that, as far as my experience goes, the inconveniences stated by Mr. Damsel to attend the use of my patent do not exist; but, on the contrary, at these works, at Victoria, Dundee, and elsewhere, the furnace managers find the burden heavier and the drawing better. Indeed, the improvement in these respects, claimed at Victoria and Dundee on their new furnaces, is quite extraordinary. Not having heard of Mr. Damsel's name as connected with the iron manufacture of this country, I am at a loss to guess where his experience was arrived at; and I can only say that these works are always open to public inspection, for the verification of any statements I have put forth, relative to the beneficial use of the gaseous escape from blast-furnaces.—J. PALMER BUDD: *Ystalyfera*, Jan. 7.

## EXPLOSION OF THE BOILER AT CROW TREES, AND THE GOVERNMENT INSPECTOR.

SIR,—In the *Mining Journal* of the 21st Dec., relative to the explosion of the boiler at Crow Trees, it was stated that the Government inspector of mines had examined the boiler an hour previously, and pronounced it safe. This, allow me to inform you, is altogether an error. The inspector had examined the underground workings of that mine for a specific purpose; and his attention was neither called to the boilers, nor did he on that occasion examine them at all; nor, probably, had he examined them, could he or any one have foreseen such an explosion, provided the boilers appeared in good repair. The cause of boiler explosions seems enveloped in mystery, occurring to new as well as to old boilers. The local engineer swore at the inquest that he had examined the boilers half an hour before, and found them all right. Two valves to each boiler—one open to the engine, the other locked, and of two different constructions—seems the only safe mode for securing against such accidents; but more of this another time. It is but justice to the Government inspector that the fact I have above-stated should be known. M.

Jan. 2.

## MR. BRUNTON'S FAN MINE VENTILATOR.

SIR,—The increased attention which has been bestowed on the subject of mine ventilation during the last three or four years, has served to stimulate the ingenuity of mechanics, and those concerned in mining, in order to discover some means of greater efficiency, and less liable to accident than the furnace. Of these proposed improvements, Mr. Gurney's high-pressure steam, Mr. Struvé's ventilator and Mr. Brunton's fan appear to be the best of the plans which have been suggested, and to have been the most favourably received. The high-pressure steam, and Mr. Struvé's aerometers, have been fully described and discussed in your columns, whilst Mr. Brunton's very ingenious and simple contrivance has only been slightly or incidentally noticed. Whatever has a tendency to attract and keep alive the interest of your readers in this important subject, can scarcely fail of being advantageous, and may possibly be a means of eliciting facts and suggestions of great practical value. As a pupil of the celebrated Watt, and as an engineer of great talent and acquirements, who has for the long period of 50 years been engaged in the application of machinery to mining operations, Mr. Brunton is peculiarly qualified, both by education and experience, for the task he has undertaken, and a plan suggested by him is well deserving of an attentive consideration. Actuated by the same liberal and benevolent motives which influenced Mr. Gurney in not patenting his discovery, Mr. Brunton has also generously given his invention to the public, and, therefore, it may be adopted, without incurring any annual payment as a patent right.

Mr. Brunton describes this machine as being constructed over the upcast shaft, or over a chamber connected by a short tunnel with it. The top of the shaft is closed by moveable platforms. The fan is a hollow drum of sheet-iron with radial compartments, through which the air is discharged with that degree of force due to the velocity with which the drum revolves upon its axis. The exterior diameter of the drum is 22 ft., with compartments 6 ft. long, measured radially; 16 ft. being their mean diameter, the centrifugal force at 120 revolutions per minute will be 39.25 lbs., which, multiplied by the weight of 6 cubic feet of air =  $\frac{1}{14}$  of a pound, will give a pressure of 17.5 lbs. on the square foot, as the amount of rarefaction produced in the interior of the drum, and, consequently, in the upcast shaft with which it is connected. The drum is to be driven by a small engine placed horizontally on the masonry supports, and connected directly with the vertical shaft of the drum. The machine is a new modification of the fan, and its construction is of the most simple character; it has no valves or separate moving parts; has no attrition, and all the friction is resolved into a foot pivot moving in oil; when at rest it offers no impediment to air ascending from the shaft; it is inexpensive, and not liable to derangement; in short, says Mr. Brunton, it is a simple mechanical implement, whereby any degree of rarefaction necessary to ventilation is rendered certain and regular, being subject to the law of central forces, which is as fixed and determinate as that by which a stone falls to the earth.

In order to test the capabilities of the machine, Mr. Powell had one erected, under Mr. Brunton's superintendence, at the Gelly Gaer Colliery, near Cardiff, with an intention of adopting it in some other of his collieries, should it be successful. After remaining for some months at this colliery it was removed, with the intention of applying it to the Duffryn Colliery, the property of the same gentleman. Circumstances occurred which have delayed its re-erection, and in consequence it was very generally reported that the machine had failed in accomplishing its object; whereas it was never intended to remain permanently at Gelly Gaer, but was merely placed there as an experiment, and was considered by all who had an opportunity of seeing it at work to have been eminently successful. "I am fully persuaded," says Mr. Powell, in a letter to Mr. Brunton, "that the ventilator which is erected at my colliery (Gelly Gaer) will answer the purpose, and prove a blessing to all concerned in coal mines." Mr. Dobson, mining engineer, in his evidence to the Committee of the House of Lords, said—"I think it is the most simple means of ventilating by machinery that I am aware of. I think the machine itself is much less liable to accident than any other machine of the kind. I think it a much more powerful means of ventilation than the furnace." Mr. Barber, C.E., had also inspected the machine whilst at work, and stated to the same committee—"I think the principle is safe and good, and that it is a great improvement upon the furnace. The circumstances under which it was tried were not favourable for testing its merits to their full extent; for instance, the engine was a condensing engine, and ill adapted for high velocities. The wind-ways in that colliery also present very objectionable obstructions to the free passage of the air; in one case the aperture is only 18 square inches, and in another 2 feet by 3 feet." It was also stated by Mr. Dobson that the air-ways at the top of the shaft were so imperfectly covered as to allow the admission of air from the surface, which seriously diminished the effect of the machine underground. Yet, under all these very great disadvantages, it appears to have maintained a ventilation of 18,000 cubic feet per minute. On being visited by several engineers, coal-owners, and mining agents, it was found that the machine maintained a rarefaction in the upcast shaft equal to  $\frac{2}{3}$  in. of water, or 13 lbs. on the square foot. In one of the air-ways, the mean area of which is  $9\frac{1}{2}$  ft., the air was propelled at a velocity of 32 ft. per second; and afterwards, in its way to the upcast pit, on passing through an opening of only four square feet, it attained a velocity of 70 ft. per second, exhibiting a degree of rarefaction and power of propulsion (the chief objects of the experiment) to the entire satisfaction of all the gentlemen present. The air was carefully measured in its passage through one of the levels 6 ft. square, when it was found to travel 20 yards in seven seconds. On the following day a very important experiment was made, by stopping the influx of the air from the downcast shaft, and in less than five minutes the whole of the colliery was subjected to a rarefaction equal to  $\frac{2}{3}$ ths of an inch of mercury = 21 lbs. on the square foot. Mr. Brunton says that at Mr. Powell's pit a rarefaction equal to 2 inches of water was produced by the machine revolving 90 times in a minute, and that with 200 revolutions per minute he could obtain a pressure equal to  $\frac{1}{4}$  in. of water, or 48 lbs. on the square foot. He also says that he never obtained in South Wales a greater rarefaction by furnace than  $\frac{1}{3}$ ths of an inch of water = 1.93 lbs. on the square foot; and that in the Haswell Colliery, which is considered as one of the best ventilated collieries in the north of England, the highest pressure he observed was 8 lbs. on the square foot, or  $\frac{1}{4}$  in. of water.

The cost of the machine is estimated at 85*l.*, and a high-pressure engine, with boiler of 3-horse power, which is said to be sufficient, at 75*l.*; the whole, therefore, in complete working order, will cost 150*l.* The annual

cost will be very inconsiderable; and it appears to be the unanimous opinion of all who had an opportunity of inspecting it whilst in operation, that it is not only a safer and more efficient means of ventilation than the furnace, but is also much more economical. These recorded facts and opinions are unequivocally demonstrative of the value of this invention; and although the writer had not an opportunity of seeing the machine in operation at the Gelly Gaer Colliery, the foregoing results are strongly corroborative of the effects produced by a model of the machine which he saw in London last year.

Without entering into a discussion as to the relative merits of this machine when compared with the furnace, high-pressure steam, and Mr. Struvé's invention, it will scarcely be denied that this mode of ventilation, either as a sole or auxiliary power, is an important addition to the means previously known; and that Mr. Brunton has done good service to the cause of humanity, by the modifications and improvements he has made in applying the fan to mine ventilation. J. RICHARDSON, C.E.

Neath, Dec. 28.

## SAFETY-LAMPS.

SIR,—Davy's lamp has been represented by some as a perfect preventer of explosions of fire-damp; but it is well known that, even when untouched by the recklessness of the miner, it is not always infallible, and Mr. Kenyon Blackwell, in his statement relative to the recent Aberdare explosions, confirms this:—"The Davy lamp (he says) is liable to accident, especially if long exposed to an explosive atmosphere." It is not improbable that some of the many and mysterious accidents that have happened in coal mines may be due to its deficiencies. To remove some of these, I proposed, through the medium of your *Journal*, more than 12 months ago, that the use of the Davy lamp should be discontinued, and that the Clanny lamp should be always employed, but with the addition of a double wire gauze. By this means a greater degree of safety would be ensured; for should the inner gauze become too hot or defective in any way whilst in the mine, the second covering would render any disastrous result impossible, for the want of security would be rendered evident by the burning of the fire-damp (supposing it to be present) between the inner and outer coverings, and the lamp could be removed.

The cause of humanity requires that every means should be adopted to preserve the life of the miner, which is at all times exposed to much danger; and, as the chance of explosions of fire-damp is not entirely removed by the use of the Davy lamp, does it not become the duty of coal proprietors to employ a more secure lamp, especially when it is to be obtained at a trifling additional cost? A double gauze would not answer with the Davy lamp, because it would produce too great a degree of obscurity, but with the Clanny lamp there could be no objection raised on this account to the adoption of the suggestion. J. J. LAKE.

Ordnance-office, Portsmouth, January 8.

## THE AMERICAN CHURN.

SIR,—I was surprised the other day in examining the structure of the American churn to observe how slightly it differed from the ordinary revolving barrel churn, and on how slender a thread the patent was suspended. I do not complain of this slight modification, or its simplicity of structure; but, as appears to me, the price imposed on the article is beyond a parallel. It could certainly be made for a few shillings; and yet thirty shillings is its selling price, and that, too, for a machine calculated to make only 4 lbs. weight of butter! However, the cupidity of the patentee has defeated his own object in a languid and limited sale. Of its price, and consequent lack of sale, the ironmonger, as I think, justly complains. I do not want anything of the kind; I only plead for the public benefit.—J. MURRAY.

## ADULTERATIONS—GUANO.

SIR,—We are assailed with adulterations on every hand. Wherever we turn, spurious and sophisticated articles are presented to us; and the genuine article seems now to be the exception. Never were the appliances of chemistry more loudly called for, or their aid more valuable. Even in the article of peroxide of manganese I have seen FIFTY per cent. of sand! The other day, a specimen of so-called "Peruvian guano," bought at 9*l.* a ton, was shown me. It proved to be worthless rubbish—light garden soil, to which had been superadded ammoniacal matter, and as it seemed to me that of the gas-works.

Another specimen which I analysed did not exhibit a trace of ammonia! I pronounced it to be a little lime rubbish, mixed with earth, taken from the middle of a field; and the sequel proved I was entirely correct. A more outrageous imposition on public credulity has, perhaps, never before been made.

By nefarious practices such as these, the farmer is robbed of his money, and cheated of his produce. The crop for the season is marred, and the community suffers in the diminished returns of harvest. J. MURRAY.

## ADULTERATIONS OF FLOUR AND BREAD.

SIR,—I believe that the adulterations of flour are ramified and extensive; indeed, in the district I have recently visited, convictions before magistrates have been numerous, and their decisions in these cases of adulterations of flour, &c., amply sustained. I have certainly found in numerous cases the bread adulterated with alum, and that, too, in home-made bread—proof sufficient and ample that the alum had been previously introduced into the flour. Thus are the bounties of a beneficent Providence marred by the diabolical deeds of man; for I do not remember a season wherein the wheaten flour was fraught with richer supplies of that distinctive and characteristic principle, vegetable gluten (the most nutritious of organic forms in vegetable nature), than that of the present year. Broadstone, Stranraer, N. B., Jan. 3. J. MURRAY.

## LEAD IN SUGAR—SCOFFER'S PROCESS.

SIR,—A few days ago, I analysed a specimen of refined sugar, and obtained clear and unequivocal evidence of lead. Verily, there is "death in the pot." I speak advisedly when I give it as my decided conviction that there does not exist in the whole catalogue raisonné of poisons one more insidious and subtle than lead. I except none of its salts; they differ only in degree. That lead, as well as arsenic, was employed by the infamous Locusta of remote antiquity, and formed an ingredient in the secret and slow poison of the *aqua tophana*, there can be no reasonable doubt. That among the poisonous contents of the horrid casket of St. Croix and the Marchioness Brinvilliers both lead and arsenic were mingled, has always appeared to me self-evident.

I plead for the weal of the community, and act on the principle of self-preservation, when I denounce in the most unqualified terms Dr. Scoffer's process for the refinement of sugar by a salt of lead, and can only express my surprise that a patent should have been granted for a process so dangerous.—J. MURRAY.

## PRUSSIC ACID, AND ITS ANTIDOTE.

SIR,—The earliest antidote I proposed for that truly formidable poison, prussic acid, was ammonia; but ammonia proved only partially antidotal. In chlorine, and the chloride of lime, &c., I found antidotes the most complete and determinate. In recently investigating bichloride of iron, commonly called *permuriate* of iron, as a re-agent for the detection of hydrocyanic acid, I discovered that the bichloride of iron was an effectual antidote to prussic acid! This being always available at almost every druggist's, makes the boon more valuable. J. MURRAY.

## THE MUD OF THE NILE.

SIR,—In diligently considering the researches of Prof. Ehrenberg on the deposits of some rivers, as discovering various kinds of infusorial animalcules, it occurred to me that the mud of the Nile might, partly at least, owe its fertilising properties to the presence of similar deposits. I had already proved the presence of soda salts, carbonate of lime, peroxide of iron, &c., in the mud of the Nile; and the lens having given me unequivocal traces of organic forms, I pursued my chemical investigations, and by the action of pure caustic potassa, and the test of turmeric paper, &c., received the most clear and unequivocal evidence of the presence of ammonia—one grand source of the fertility communicated to the land of Egypt by the annual inundation of the Nile. J. MURRAY.

## THE CRYSTAL PALACE, AND THE PALM HOUSE AT KEW.

SIR,—I strongly suspect that if some provision be not made for the contingency, both the Crystal Palace and the Palm House at Kew will be placed in jeopardy from thunderstorms and hailstorms, their associates and concomitants. The vast amount of conducting material in the iron pillars of support will, in the former case, it is probable, *pro tanto*, operate

as a safeguard; but I would, to make "assurance doubly sure," surround both these structures with conducting-rods, on the principle of *paragrèles*. Broadstone, Stranraer, N. B., Jan. 6. J. MURRAY.

## THE LIVERPOOL POWDER MAGAZINES.

TO THE EDITOR OF THE LIVERPOOL MERCURY.

SIR,—The question of lightning conductors for the Liverpool powder magazines merits serious consideration. Shall the sacrifice of public safety be made at the shrine of Favouritism, or the authority of a name? There is idolatry everywhere; and Lord Bacon was right in the diversified forms under which the "idola" is worshipped; for there is more than one species of the genus "idola."

Snow Harris's lightning conductors for ships—and, as far as I know, the principle has never been attempted to be carried into effect on land—consists of nailing strips of brass to the masts of ships at sea. Every one acquainted with the elements of electricity is familiar with the tendency of the dissipation of electricity by angles, and edges and points. I can fearlessly appeal to the experience of every sound electrician, and Mr. Martyn Roberts, an eminent authority, has given an opinion entirely unfavourable to Harris's conductors.

I was the first to propose copper in substitution for the iron that had been previously exclusively employed as the material for conductors; and my lightning-rod is, moreover, cylindrical—the form best calculated to retain and convey the electricity.

More than FIFTY of my conductors have been erected in Great Britain, and have been in successful operation for 25 years!—a sufficient test, surely, of their superior excellence, and an ample pledge of their entire and unqualified safety. The invention has been of no pecuniary advantage whatever to me.—J. MURRAY: Broadstone, Stranraer, N. B., Jan. 4.

KNOCKMAHON COPPER MINES, WATERFORD.—Although the actual returns from these mines during the past six months have not equalled the expectations entertained by the directors of the Mining Company of Ireland, by whom they are owned, yet the improvement in the prospects is very considerable. The increased searches induced by the liberality of the Ecclesiastical Commissioners as regards Knockmahon royalty, and the arrangements for a new lease of Mrs. Osborne's section of the mines, have already led to valuable discoveries at each end of the extensive range open on the former section, in addition to the discovery of ore to some extent within the old workings; and in the deep level, 200 fms. from the surface, it is ascertained by the course of the large lode upon which openings have been made in Tankardstown, part of Mrs. Osborne's property, that the lode passes into the estate of the Ecclesiastical Commissioners at about 150 fathoms distance from the present end of the level, where the prospects at the depth of 24 fathoms justifies the expectation that a lode of such magnitude, and of such favourable appearance, will yield satisfactory returns in both properties; and at the western end of the range, on Mrs. Osborne's estate, a decidedly valuable course of ore has been discovered at the depth of 50 fms., upon which some pitches have been set at the low tribute of 4*l.* 3*d.* in 1*l.* The searches which led to those discoveries have occasioned considerable expense to the company in the past half-year, as set forth in the accounts; and the sinking of the intended shaft, together with the prosecution of the searches in Tankardstown and Knockmahon, will require a further outlay of considerable amount, which will, however, it is expected, be amply compensated by the workings in ore already discovered—the present price of copper being more remunerative than it has been for some years past.

REDCAR AND MIDDLESBROUGH RAILWAY.—On Monday the branch line connecting the iron works at Eston Nab, in North Yorkshire with the Middlesbrough and Redcar Railway, was opened.

## WHEEL CARPENTER, in the TAVISTOCK DISTRICT.

The following REPORTS were read at the GENERAL MEETING of adventurers, held at the Bedford Hotel, Tavistock—the series of Resolutions passed at which appeared in last week's *Mining Journal*:—

## CAPTAIN JOHN KEY'S REPORT.

Wheal Carpenter, Nov. 6.—We have driven our 10 fathom level west 8 fathoms on the north side of the lode, where we have had very fine stones of lead ore throughout. The water increasing so fast here, I thought it advisable to stop this end, and to commence driving east a few fathoms, to prove the lode, whilst the water would admit of our doing so. The north wall letting down the water so fast, we drove east about 8 feet on the south side of the lode, where we cut a branch of copper ore about 9 inches wide, of very good quality; here a small cross-course intersected the lode, where we had a fine branch of lead for a few feet, when we again cut the branch of copper, which is about the same size (the cross-course has not here the lode). We have driven this end's fathoms, at 30*s.* per fathom. I cannot say the size of the lode, as we have not been following down all the lode in driving our end, and I have been afraid to approach near the north wall, as we have already so much water as we can keep by horse-power. The cost now for keeping the water is 1*s.* 6*d.* for every 24 hours, which, of course, must be stopped, and machinery applied for that purpose. Taking the general appearance of the lode, I must say, according to my opinion, it has a very flattering appearance, and well deserves a vigorous prosecution. I have visited nearly all the mines in this neighbourhood, and cannot point out any new concern that is looking half so promising as Wheal Carpenter. JOHN KEY.

## CAPTAINS KEY AND CARPENTER'S REPORT.

Wheal Carpenter, Nov. 22.—In accordance with the resolution passed at your last meeting, we have taken a survey of the surface of the sett. The water is at its low level, and we therefore could not inspect the lode where explored at the 10 fathom level. Its produce, however, from the limited extension of that level, fully confirms the report made by Cap. Key in Nov. 1846. The specimens of copper ore still remaining at the surface gives us every reason to believe that if the lode is prosecuted with the vigour such indications fully warrant, and we strongly recommend, there is scarcely a doubt of this mine being a productive and profitable one; or, at all events, it is a rare occurrence to see such good stones of ore produced from the back of a lode so near the surface; and the congeniality of the stratum is, in our opinion, every thing that can be desired to bear out our anticipations of the lode's productiveness. We therefore, recommend the preparatory operations, such as bringing in a lobby to drain off all the surface water from an engine-shaft, which we propose to sink about 20 fathoms north-east of the present shaft, whereby it may take the lode at or about 30 fathoms deep, first to sink it 20 fms., and then drive a cross-cut to see the lode 10 fathoms deeper than it has already been seen, from which level you may either rise or sink on the course of the lode, as circumstances may require, for the better ventilation of the different future operations, as well as for facilitating the drawing of the ores. We think a 30-inch cylinder steam-engine, with its suitable appliances, will suffice to command extensive explorations on the lode, from 30 to 100 fathoms deep. JAS. CARPENTER, of Wheal Arderton. JOHN KEY, of Wheal Fortescue.

## CAPTAINS SECORBE AND DUNSTAN'S REPORT.

South Sydenham, Dec. 2.—We have this day carefully surveyed the above mine sett, comprising extensive limits in the lands of Mrs. Carpenter and Mr. Perkin, and find that its situation, relative position, and prospects, fully warrant the description already given of it in the former reports of Captains Carpenter and Key. The lode, which is of an east and west bearing, with a north underlay, is upon the back large and well-defined, composed of floukan, gossan, and quartz, with a leader containing good stones of lead. We saw at the surface a heap of stuff, which was broken from the lode about 10 fathoms from the surface, in which we found very good stones of yellow copper ore, which, from its composition, the nature of the stratum, and other geological and mineral indications, fully warrant our opinion that a rich deposit of copper ore may be expected at a reasonable depth. Judging from these facts, we feel perfectly justified in recommending this mine as a speculation well worthy of a most spirited trial; to effect which, we recommend the sinking of a perpendicular shaft, of sufficient size for a steam-engine of from 30 to 40-inch cylinder, which should be fixed so as to intersect the lode at about 50 fms. deep. This engine should be erected without delay, and during the sinking of the shaft above recommended, we advise a flat-rod to be attached to the engine, and applied for drawing the water out of the present shaft, and so further explore the lode at the 10 fm. level, whence the produce we have seen was raised; and in the extension of this level we think there is every probability of ore being raised to aid considerably the cost of the works we recommend. SAMUEL SECORBE, of Wheal Phoenix, &c. ROBERT DUNSTAN, of West Caradon, &c.

Tavistock, Dec. 6.—Referring to the reports of Captains Key, Carpenter, Secorbe, and Dunstan, I beg to say I fully concur in their representations of the character of the Wheal Carpenter lode, as also the expectations entertained by them of its future productiveness. When there I broke some stones of lead ore over 2 lbs. weight each from the floukan on the north part of the lode, west of the shaft, in the lobby; these produced 14 in 20 for lead, or 70 per cent., and 26 ozs. of silver in a ton of ore, the which at Quay is worth £14 to £14 10*s.* per ton—this is a fair sample. I also picked up some of the best pieces of yellow copper ore from the heaps which came from the 10 fathom level east; these produced 27 per cent. for fine copper—showing that this ore is intrinsically of a superior quality. Their recommendation to sink a shaft to cut the lode at a fair depth is judicious; but with respect to the application of steam-power, although fully deserving it, your sett will be so much the more valuable provided water can be substituted. I have looked at such streams in the vicinity as can be readily applied; I would, therefore, strenuously advise your being correctly informed whether it is sufficient or not, for independent of the first outlay in favour of water-power over steam, the future maintenance is of no inconsiderable moment. I shall be glad to secure, for self and friends, a few shares in this adventure. JERU HITCHINS.

The report of Mr. Hitchins and Mr. Nathaniel Smith, engineer, relates solely to the adoption of water-power for working the mine, which will depend upon the result of the third resolution.

THE ARCHITECT, incorporated with the CIVIL ENGINEER AND ARCHITECT'S JOURNAL.—Established in 1837.—Published weekly, price 4*d.*, or stamped 6*d.*, and in monthly parts 1*s.* 6*d.*—for Civil, Mechanical, and Military Engineers, Architects, Builders, Surveyors, Patentees, and all scientific men. This Journal is illustrated with numerous plates and engravings from the best examples of public works, buildings, and machinery, at home and abroad, forming a complete Encyclopedia of Modern Engineering, Architecture, and Science. It reckons among its contributors and supporters the most eminent members of the profession in England, Scotland, and Ireland; and, as a work of reference and of current information, has been long received as an authority in the United Kingdom, America, and the continent of Europe. It also contains a record of all the principal Scientific Societies' proceedings. The last Volume, for 1849, contains 22 plates and 238 wood engravings.—The Thirtieth Volume may be had, bound in cloth, 4*l.* each. To be had of Groombridge & Sons, Paternoster-row; Sutherland, Edinburgh; M'Phun, Glasgow; Robertson, Dublin; Mathias, Paris; Mosier, Madrid; W. Campbell, Hamburg; Meinhardt, Brussels; Wiley, New York; and at the offices, No. 10, Finsbury-street, near No. 194, Strand.



## ACCIDENTS IN MINES.

According to our annual custom, we present our readers with a table of the melancholy occurrences which have transpired during the past year:—

Date.	No.	Explos.	Others.	Total.	Explos.	Others.	Total.	Week.	Month.
Jan. 5...	3	1	2	3	—	—	—	3	
" 13...	2	1	1	2	—	—	—	2	
" 19...	2	—	2	2	—	—	—	2	
" 26...	9	1	6	7	1	1	2	9	16
Feb. 2...	8	—	4	4	—	—	—	8	
" 9...	8	4	7	11	—	—	—	11	
" 16...	17	8	14	22	—	—	—	22	
" 23...	4	4	—	8	2	2	4	10	59
Mar. 2...	11	4	10	14	1	1	2	16	
" 9...	5	—	5	5	—	—	—	5	
" 16...	11	4	6	10	—	—	—	10	
" 23...	7	15	7	29	12	—	12	24	155
April 6...	7	2	4	6	1	1	2	8	
" 13...	8	—	9	9	—	—	—	9	
" 20...	9	7	6	13	—	—	—	13	
" 27...	13	2	8	9	—	—	—	9	45
May 4...	10	2	7	9	1	1	2	11	
" 11...	9	—	7	8	—	—	—	8	
" 18...	5	—	5	5	—	—	—	5	
" 25...	4	2	1	3	7	—	7	10	40
June 1...	9	—	6	6	2	2	4	10	
" 8...	14	13	12	39	7	1	8	33	
" 15...	11	1	9	10	—	—	—	10	
" 22...	4	1	3	4	—	—	—	4	
" 29...	2	—	2	2	—	—	—	2	60
July 6...	11	—	14	—	—	—	—	14	
" 13...	8	2	5	5	—	—	—	5	
" 20...	8	—	6	6	—	—	—	6	
" 27...	11	22	5	27	6	—	6	33	65
Aug. 3...	7	—	6	6	—	—	—	6	
" 10...	9	2	7	9	—	—	—	9	
" 17...	6	1	4	5	—	—	—	5	
" 24...	12	2	7	9	2	5	7	16	
" 31...	10	—	7	7	1	3	4	13	51
Sept. 7...	9	3	8	11	—	—	—	11	
" 14...	10	1	13	14	—	—	—	14	
" 21...	10	1	12	13	—	—	—	13	
" 28...	17	1	12	13	5	2	7	20	79
Oct. 5...	8	1	3	4	2	—	2	6	
" 12...	8	22	4	26	13	—	13	39	
" 19...	7	4	4	8	5	1	6	14	
" 26...	12	2	6	11	10	1	11	22	81
Nov. 3...	9	2	10	12	7	2	9	21	
" 10...	10	13	8	21	24	—	24	45	
" 17...	11	20	8	29	10	3	13	20	
" 24...	16	2	14	16	3	1	4	20	
" 31...	9	—	6	6	—	—	—	6	139
Dec. 7...	6	—	5	5	1	1	2	7	
" 14...	20	17	11	28	37	4	41	69	
" 21...	10	2	9	11	—	2	2	13	
" 28...	10	14	7	21	3	2	5	26	115
	464	282	350	632	190	83	273	905	

From this it will be seen that the number of accidents was 464, being 58 more than in the year 1849, when they were 406, the total of deaths 632, while in the two preceding years they were 567; the injuries amounted in 1850 to 273, in the year 1849 to 341. Though there has been a frightful increase in the number of accidents that have been fatal, yet on the total of deaths and injuries a slight diminution has taken place, the return for 1849 being 908, while that of 1850 is 905. The number of deaths by explosions have been 282, fall of roof 149, falling in shaft 88, machinery 19, and various accidents 94; the injuries have been—explosions 190, fall of roof 30, falling in shaft 9, machinery 18, accidents 26; while in 1849 there were deaths respectively, 255, 154, 90, 16, and 52; and injuries 210, 52, 39, 23, and 17. On referring to the table, it will be seen that the greatest number of accidents took place in the month of March, when they amounted to 155, the number of deaths being 129; while the smallest amount was in January, when they were 16, out of which there were 14 deaths. The monthly average of deaths will be about 52½, and that of injuries 22½.

**PREVENTION OF ACCIDENTS IN MINES.**—T. C. Maynard, Esq., coroner for Eastington Ward, Durham, has forwarded the following suggestions to the colliery viewfinders, for the prevention of accidents in mines:—

That a notice board, painted in large white letters on a black ground, should be affixed at every place in each pit, beyond which it is unsafe or imprudent to use naked lights, intimating to the workmen that "No candle, or other naked light, is allowed to be used beyond this point, on any pretence whatever;" and at intervals throughout those parts of the pit where the Davy lamp only ought to be used, a similar board to the following or similar effect:—"No candle, or other naked light, allowed to be used here."

That proper printed instructions be given to every workman entrusted with a Davy lamp, previously to his being allowed to use it, and that the name of every individual receiving such instructions, and the time when given, should be registered in a book, to be kept for that purpose, and the entry authenticated by the signature of the person giving the same.

That inasmuch as the adoption of the former suggestions will afford ample proof of notice of the regulations having been given to each individual (for the want of which you are, no doubt, aware many have escaped conviction), no workman committing any breach of those orders and instructions should, if possible, be allowed to escape the punishment, awarded by the law for offences which experience has shown so frequently to result in the sacrifice of the lives of large numbers of their fellow-workmen.

## ACCIDENTS.

**Holy.**—Anthony Cook, a man at the fire-whim at Alfred Consoil Mine, was killed by the bursting of the boiler, which was a red to fragments; the boiler was nearly new.

**Aberdeen.**—Wm. Evans, a boy of ten years of age, was killed at Mr. Nixon's colliery, by the falling from the top of a piece of coal, about 5 cwt.

**South Heaton.**—A man, named John Brown, in a state of intoxication, was on his way home, when, in passing over the pit-head, he fell over the scaffolding, a depth of 15 ft., on to an iron pin, which pierced the intestine, and terminated fatally.

**Llanelli.**—At the Castle Colliery, three men, named David Longhurst, William Williams, and John Morgan, were killed, by being thrown out of the basket in the course of its ascent from the pit. It is supposed that one of the men, on getting into the basket gave it a lurch, which caused it to swing in its ascent, and come in contact with a partition beam in the pit, about 12 fms. from the bottom, by which the basket was tilted, and the unfortunate men precipitated to the bottom. A nephew of David Longhurst was in the basket at the time, and sustained a severe fracture of the thigh, but will, it is hoped, recover.

**Durham.**—A boy named John Brown was playing upon the pit-head at Hutton Colliery, his foot slipped, when he fell into a bed of fire, and was burnt to death.

**Killingworth Colliery.**—R. Henderson was killed by the falling of a stone at this colliery.

**Pentire.**—William Llewellyn sustained a compound fracture of his leg by the fall of a quantity of rubble.

**Tipton.**—G. Partington was killed by a fall of coal at Mr. Round's Colliery, Tivdale.

**Merthyr.**—Abraham Evans was killed by a fall of coal at the Werfa pit.

**Swansea.**—An explosion of fire-damp occurred at Cwmnach, in a level belonging to the Ynysodwyn Iron Works, when four persons were very severely burnt—one died shortly after being brought out, and another is not expected to survive.

## COAL MARKET, LONDON.

PRICE OF COALS PER TON AT THE CLOSE OF THE MARKET.

**MONDAY.**—Buddle's West Hartley 13 9—East Adair's Main 11 6—Hastings' Hartley 13 6—Howard's West Hartley Northerton 13 9—Tandford Moor Butes 13 3—West Hartley 13 9—West Wylam 13 3—Wall's End Baxter 14 9—Hartons 15 3—Hedley 15—Hilda 15—Birchgrove Graigola 19—Cowpen Hartley 13 9—Gors Goch Stone 22—Hartley 13 3—Sydney's Hartley 13 9—Ships at Market, 187; sold, 51.

**WEDNESDAY.**—Bate's West Hartley 13 3—Buddle's West Hartley 14—East Adair's Main 13—Hastings' Hartley 14—Howard's West Hartley Northerton 14—North Percy Hartley 13 3—South Pearnth 12—West Hartley 14—West Wylam 13 6—Wall's End Baxter 15 3—Brown 14 3—Bewick and Co. 15—Gosforth 15—Heaton 15—Hilda 14 9—Lambton 16 6—North Hutton Lyons 15 3—Russell's Hutton 16 6—Scarborough 15—Stewards 16 9—Whitwell 15—Hartlepool 16 6—South Hartlepool 16 3—Whitworth 13 9—Addicks 16—Seymour Toss 14 9—South Durham 15—Hartley 13 6—Kilmarock Best Steam 13—Nixon's Marthor 21—Whitworth Coke 20 6—Ships at Market, 240; sold, 51.

**FRIDAY.**—Carr's Hartley 13 6—East Adair's Main 12 3—Hastings' Hartley 13 6—Barnsworth West Hartley 13 6—Tandford Moor 13 6—West Wylam 13—Wylam 14 6—Wall's End Brown 13 9—Original Gibson 13 6—Hutton 16 6—Hawell 16 6—Pemberton 14—Russell's Hutton 16 3—Heugh Hall 15 3—Kellie 16 6—Whitworth 12 9—Adelaide Toss 15 9—Brown's Deansley 14 9—Cleveland Toss 13 9—Beggie's Hartley 12 6—Cowpen Hartley 13 6—Hartley 13 3—Ships at Market, 227; sold, 59.

Delivery of coals, &c., in the port of London during the month of December:—

	Tons.
Newcastle	425
Sunderland	375
Stockton, Middlesbrough, &c.	312
Blyth	52
Scotch	6
Welsh	21
Yorkshire, &c.	21
Small coal	6
Cinders	10
Total imported in December, 1850	1228
Total imported in December, 1849	356,567
Decrease in 1850	2,183

Inland coals brought by canal, in the month of Nov., 1850, upon which the City's and other dues were received. Tons 2612½

Inland coals brought by railway, the City's and other dues upon which were paid into the Chamber in the month of December, 1850. 11837

## Comparative Statement of 1849 and 1850.

Imported from January 1 to December 31, 1850	3,558,304 tons.
Imported from January 1 to December 31, 1849	12,074
Increase in the present year	599
	214,158

## WHEEL GILL MINE—ST. CLEER AND ST. IVES.

NEAR LISKEARD, CORNWALL.

Deposit £1 per share, divided into 1536 shares.

A great portion of which are already taken up by respectable and responsible parties.

This MINE is situated in the parishes of ST. CLEER and ST. IVES, nearly 2 miles in length, and not far from those celebrated and profitable silver-lead mines, called Trelawny, Wheal Mary Ann, and Trehaun—having several similar rich lodes of silver-lead running through the whole length of the southern part of the sett. Large rocks of silver-lead are now visible at the 16 fathom level, and can be taken away on tribute. These lodes can be cut also at the 54 fathom level, which is of immense importance.

There are also five known copper lodes to the north of the sett, of the most splendid description, with excellent cross-courses. These copper lodes are on the south-east of those very valuable and profitable mines called South Cargdon and West Caradon. One lode in particular has been worked on, and contains large and rich deposits of copper ore. This ore can be also taken away at tribute in the 54 fathom level.

All practical miners in the neighbourhood of Liskeard admit that Wheel Gill is a very valuable and rich sett, both for silver-lead and copper ore; and it only requires a small capital to bring the ore to grass, and make the mine a rich dividend-paying mine. The former adventurers truly regretted the cessation of the mine, which was caused by not having sufficient steam-power at first, a circumstance too often leading to the abandonment of the richest mines in Cornwall. The present company have purchased a 70-inch cylinder steam-engine, of sufficient power to carry the mine down 200 fathoms, and many of the former adventurers have in consequence joined the undertaking, being fully satisfied of the results.

Ten years' perseverance and work, at an outlay of £15,000, has been already accomplished, all of which the present company have secured from the lessees, and have that advantage, for the sum of £1500—a circumstance of vast importance, and almost unparalleled. The only reservation to the owners of the sett being 536 shares, according to the conditions of the cost-book.

The owners of the mine have thought proper to take the advice of the most talented mining men of the age, and have called in the following parties to inspect the same:—viz.: Evan Hopkins, Esq., of 13, Austinfriars, London; Captain J. Kemp, of Trelawny Mine; and Captain Richards, of Trehaun, as well as several other practical miners; and annexed are their reports, which must at once satisfactorily prove to every one the character of Wheel Gill, and her qualifications as a valuable and rich mining property. Gentlemen wishing to purchase a few shares are requested to apply forthwith, as under; but it is distinctly understood, in making such application, a reference must be forwarded to—James Lane, Esq., 52, Threadneedle-street, London; the Devon and Cornwall Banking Company, Liskeard, Tavistock, Exeter, and Plymouth; Messrs. Sanders, bankers, Exeter.—The calls will not exceed £1 per share every two months.

## REPORT OF EVAN HOPKINS, ESQ.

This mineral property is situated in a valley, a few miles north of the Trelawny Lead Mines. The general character of the formation is a variegated clay-slate, traversed by numerous light blue clay veins, and also by cross-courses running from the Trelawny Lead Mines, and presenting every indication in structure, composition, configuration of the valley, and the gossan, for making large bunches of lead ore in depth, but more especially southward. On the west side of the main cross-course the rock becomes more hornblende, and the east and west lodes have produced many tons of copper ore, with sulphate of zinc; a large bunch was also found in the east side of the valley. This is, as regards lead, a most important sett, and deserving immediate attention; and although it predominates in lead and zinc, yet large masses of copper ore may be found westward from this point within the limits of the sett.

EVAN HOPKINS.

## REPORT OF MESSRS. JOHN SEYMOUR, JOHN SPARGO, AND H. TAYLOR.

We have gone over this sett, and find therein two excellent lead lodes, which will produce abundance of silver lead at a very shallow depth, inasmuch as large rocks of lead may now be broken in the 16 fm. level. These lodes are not far from the rich mines of Trelawny and Wheal Mary Ann. They are similar, and can be cut at once at the 54 fm. level; so that you have a good lead mine at once. The copper lodes could only be seen on the backs, where they have a very good appearance; and we have been informed, by parties who worked on the mine last, that there is a fine course of copper ore in the bottom level, the last stone taken from the mine weighing upwards of 600 lb. We have seen some of the ore, which is rich. We early recommend you to fork the mine immediately; you will then have a profitable mine. The enormous quantity of work done, the great outlay that has taken place, the actual discovery of a rich course of lead, and another of copper, quite satisfy us that very few setts present such advantages. Every practical miner in the neighbourhood of Liskeard speaks well of Wheel Gill.

J. SEYMOUR, Trevelth; J. SPARGO, Great Sheba; H. TAYLOR, West Caradon.

## REPORTS OF CAPTAINS C. RICHARDS AND JOSEPH KEMP.

We have carefully surveyed the surface of this sett, which is a very extensive one, and find therein two excellent lead lodes, which will produce abundance of silver lead at a very shallow depth, inasmuch as large rocks of lead may now be broken in the 16 fm. level. These lodes are not far from the rich mines of Trelawny and Wheal Mary Ann. They are similar, and can be cut at once at the 54 fm. level; so that you have a good lead mine at once. The copper lodes could only be seen on the backs, where they have a very good appearance; and we have been informed, by parties who worked on the mine last, that there is a fine course of copper ore in the bottom level, the last stone taken from the mine weighing upwards of 600 lb. We have seen some of the ore, which is rich. We early recommend you to fork the mine immediately; you will then have a profitable mine. The enormous quantity of work done, the great outlay that has taken place, the actual discovery of a rich course of lead, and another of copper, quite satisfy us that very few setts present such advantages. Every practical miner in the neighbourhood of Liskeard speaks well of Wheel Gill.

S. RICHARDS, Trehaun Mine.

JOSEPH KEMP, Trelawny Mine.

## CHEMICAL ANALYSIS, &amp;c.—ANALYSIS AND ASSAYS, OR INVESTIGATIONS OF ANY KIND, ARE UNDERTAKEN AT THE COLLEGE OF CHEMISTRY, LIVERPOOL.

Professor—Dr. SHERIDAN MURPHY, F.R.S.E.  
Hon. Assistant—Mr. JOSEPH DANSON, F.R.S.

A list of Fees for Analysis, and for Students Working in the Laboratory, may be obtained by writing to Dr. Murphy, College of Chemistry, Liverpool.

## WIRE ROPE.—THE UNDERSIGNED having recently made extensive additions to their Machinery, respectfully solicit a TRIAL of their ROPES, which, in QUALITY OF MATERIAL AND PERFECTNESS OF MANUFACTURE, cannot be surpassed.

WILKINS & WEATHERLY.  
Patent Wire Rope Works, 39, High-street, Wapping, London.

N.B.—The 3½ miles of wire rope in the Wapping Tunnel, at Liverpool, was supplied from this establishment.

## STEAM TO INDIA AND CHINA, VIA EGYPT.—Regular MONTHLY MAIL (steam conveyance) for PASSENGERS AND LIGHT GOODS TO CEYLON, MADRAS, CALCUTTA, PENANG, SINGAPORE, AND HONG-KONG.

THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY BOOK PASSENGERS AND RECEIVE GOODS AND PARCELS FOR THE ABOVE PORTS by their steamers—starting from Southampton on the 20th of every month; and from Suez on or about the 10th of the month.

BOMBAY.—Passengers for Bombay can proceed by this company's steamers of the 29th of the month, to Madras, thence to Alexandria by her Majesty's steamers, and from Suez by the Honorable East India Company's steamers.

MEDITERRANEAN.—MALTA—On the 20th and 29th of every month. CONSTANTINOPLE—On the 29th of the month. ALEXANDRIA—On the 20th of the month.

SPAIN AND PORTUGAL.—Vigo, Oporto, Lisbon, Cadiz, and Gibraltar, on the 7th, 17th, and 27th of the month.

For plans of the vessels, rates of passage-money, and to secure passages and ship cargo, apply at the company's offices, No. 122, Leadenhall-street, London; and Oriental-place, Southampton.

## SCHOOL OF MINERALOGY, CHEMISTRY, AND GENERAL SCIENCE.

MESSRS. NESBITT'S ACADEMY.

No. 38, KENNINGTON-LANE, LAMBETH, NEAR LONDON.

In this SCHOOL, in addition to all the branches of a good education, EVERY FACILITY IS AFFORDED for obtaining a knowledge of ANALYTICAL CHEMISTRY AND NATURAL SCIENCE, as applied to the Arts, Manufactures, and Agriculture.

The pupils are practically taught in the Laboratories, which are fitted up with every essential for the most extensive chemical investigations.

Mr. Nesbitt's works on Land Surveying, Mensuration, Gauging, Arithmetic, English Parsing, &c., may be had of all booksellers.

References.—Dr. D. B. Reid, F.R.S.E., &c., House of Commons, Westminster; R. Prosser, Esq., C.E., Birmingham; J. L. Ballcock, Esq., Editor of *Prosser's Chemical Analysis*, Condensed edition; J. Gardner, Esq., M.D., Editor of *Lieber's Letters*, &c., Mortimer-street, Portland-place; and W. Shaw, Esq., Strand, London.

## CRAFTSD HOUSE.

## CLASSICAL, MATHEMATICAL, &amp; CHEMICAL SCHOOL.

MAIDENHEAD, BERKS.

In this School it is sought to combine the development of the physical, moral, and intellectual powers with the acquisition of knowledge, and to make the course of study an introduction to the pursuits of life.

Crafts House, with spacious dormitories, dining, school, and play rooms, was erected four years ago, expressly for the purpose of affording that time the establishment has been exempted from illness. The situation is elevated, in the vicinity of the Thames, the scenery extended and picturesque, the air bracing, and the grounds comprise 14 acres.

Besides the usual studies of Classical Schools, GERMAN and FRENCH are spoken—the latter language daily, with the assistance of natives, until Four o'clock. Mathematics are taught, theoretically and practically; there are drawing and singing classes. Physical science is pursued progressively, and the recently erected laboratory is devoted to chemical analysis, now so essential to the miner, agriculturist, and manufacturer.

Mr. J. D. Pearce, A.M., will be happy to forward prospectuses and references in answer to applications.

## BAROMETERS FOR THE MILLION.—The barometer—a philosophical instrument, which is always interesting, and generally, of considerable utility, as foretelling the changes of the pressure of the atmosphere, and the consequent alteration of weather, either for fine or foul—has hitherto, from its costliness, been confined to the upper and middle ranks of life, but in few instances has it been found to grace the habitation of the artisan, working-man, or smaller class of tradesmen.

We are glad to notice that a Mr. Brown has registered an improved arrangement of the Torricellian tube, by which, while the mercury in the bulb is fully acted upon by, and delicately sensitive to, the changing pressure of the atmosphere, the vacuum at the top of the tube is retained, and the slightest alteration on the scale perceptible; and these properties are unaffected by alteration of position, shaking, or moving, when the instrument is again placed in position. In addition to the excellence of the principle of construction, Mr. Brown has determined to mount them in an economic style, by which they are brought within the reach of the million, at a price about only a third of what barometers have hitherto been sold for, and yet have a very light and neat appearance. The same principle of Torricellian tube can, of course, be had mounted in any style of elegance, and they are now being largely manufactured by Mr. Caselli, of Hatton-garden.

## WHEAL ENYS TIN MINE, WENDRON, CORNWALL.

—Held under lease for 21 years, nearly 20 of which are unexpired, at 1-18th dues; to be reduced to 1-30th as soon as an engine shall be erected.

Divided in 1070 shares, and conducted strictly on the Cost-book System, under the superintendence of a Committee.

Mr. JOHN TRETHOWAN, Little Falmouth, Purser.  
Messrs. TREWEDY & CO., Falmouth, Bankers.

WHEAL ENYS MINE, held under lease, from John Samuel Enys, Esq., of Enys, is situated at PORKELLIS, in the parish of Wendron, which is the richest and most extensive tin district in Cornwall. It extends about half a mile from north to south, and nearly one mile from east to west, on the run of the extraordinary number of 29 lodes, which have all produced tin from surface, to the adit level; some of them in very large quantities.

The mine has been worked from time to time by various parties of poor adventurers, who unfortunately never possessed means to erect machinery, with the exception of the last party, who worked between 30 and 40 years since. These men managed to erect a water